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MEDICAL JOURNAL OF AUSTRALIA

VOL. II.—11TH YEAR. SYDNEY: SATURDAY, OCTOBER 4, 1924. No. 14.

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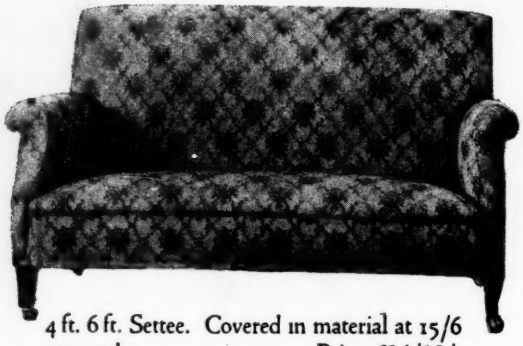

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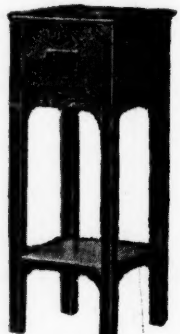

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INJURIES AND DISEASES IN AUSTRALIA ATTRIBUTABLE TO ANIMALS (EXCEPT INSECTS).[1]

By J. BURTON CLELAND, M.D.,
Professor of Pathology, University of Adelaide.

IN the *Australasian Medical Gazette* of September 14 and 21, 1912, the first series of such injuries and diseases was published. In 1915 this was supplemented by a further collection of cases published in the Sixth Report of the Government Bureau of Microbiology, Department of Public Health, New South Wales (page 270). Records of further cases have since been compiled and these are included in the present paper.

INJURIES FROM ABORIGINALS.

G. French Angas, in a paper, "Colonies," published in London in April, 1877 (quoted in the annual address[1] of the President, the Honourable John Lewis, of the Royal Geographical Society of Australasia, South Australian Branch) describes the wounding of a lad, Frank Hawson, aged ten years, in the Port Lincoln district. He received two barbed spears, which entered the chest and lungs, in defending a shepherd's hut in the forenoon against marauding natives. After being wounded himself he fired at the natives and wounded one, all of them making off. In the evening, when his brother returned, the spears were still in his body, the shafts of which he had vainly endeavoured to burn off. His brother, unable to extract them, cut them off and carried the boy on horseback to the settlement. Here very inefficient aid was obtainable, the nearest surgical assistance being at Port Adelaide, three hundred miles off, to which he would have had to be conveyed in a whaleboat across a stormy sea. The spears being barbed could not be extracted. After lingering for six days in agonizing pain, he died.

In October, 1844, Mr. Darke, leader of an exploring expedition, was wounded by aborigines on Eyre's Peninsula and died as a result. A monument has been erected to his memory.[2]

INJURIES FROM MAMMALS.

Camels.

Injuries may be received from camels either through the bites, from side kicks even when sitting down or from the animal knocking a person over and falling upon him with the breast-pad. When the male animal is "bulling" and blowing out the bladder-like diverticulum of the pharynx, he is considered specially liable to attack human beings.

[1] Read at a meeting of the South Australian Branch of the British Medical Association on July 31, 1924.

The first recorded Australian example, of which I am aware, of an injury from a camel is that Garlick, a member of Horrocks's expedition in 1846 to the North of Spencer's Gulf, was severely bitten on the head by a camel.[3] This author notes that this animal was the only camel in the colony, which suggests that this was the first introduction of these animals into Australia.

An anonymous writer ("Unohoo") in the *Register*[4] in an article on the "North and North-West Police," mentions a black boy being killed by a camel at Coward Springs many years ago. When the lad was unhobbling it, the camel seized the boy in his mouth, dragged him along the ground and dashed his brains out.

Flying Foxes.

Willshire[5] mentions the blacks as being often bitten by these frugivorous bats when catching wounded ones in the Northern Territory.

Rats.

As the rat is the reservoir of the plague bacillus and the transmitter of the organism of rat-bite fever, all information in connexion with it, including accounts of its prevalence in early colonial times, is of interest. The following descriptions of Mrs. Caroline Chisholm's experiences in Sydney in 1841 are therefore included. The quotation is made from an article by Margaret Swann.[6] Mrs. Chisholm became interested in the welfare of the numerous immigrant girls. She decided and with much reason that it was very necessary to establish a suitable home for them on their arrival where they could be efficiently cared for. At last she obtained an audience from the Governor, Sir George Gipps, and by dint of persuasion induced him to consent to her suggestion to grant the use of part of the old Immigration Barracks. Her first night's experience therein is thus described:

> The building in question was an old wooden erection, over-run with rats and when Mrs. Chisholm announced her intention of living at the Home with the girls, a store seven feet square was cleaned for her occupation and she thus describes her experiences of the first night spent in the room: "A store room was cleaned for my accommodation and having been busy all day, I retired, weary, to rest. My courage was put to the proof at starting. Scarce was the light out, when I fancied from the noise that I heard, that dogs must be in the room and in some terror I got a light. What I experienced at seeing rats in all directions, I cannot describe. My first act was to throw on a cloak and get at the door with the intention of leaving the building. My second thoughts were that, if I did so, my desertion would cause much amusement and ruin my plan. I therefore lighted a second candle and seating myself on the bed kept there until three rats descending from the roof alighted on my shoulders. I felt that I was getting into a fever and that in fact I should be very ill before morning, but to be out-generalled by rats was too bad. I got up with some resolution. I had two loaves and some butter (for my office, bedroom and pantry were one). I cut it in slices, placed the whole in the middle of the room, put a dish of water convenient and, with a light by my side, I kept my seat on the bed, reading and watching the rats, until four in the morning. I at one time counted thirteen and never less than seven did I observe at the dish during the entire night.

Wombats.

Sir Douglas Mawson has mentioned to me the following incident for which he vouches. The wombat, an animal of great bodily strength living in the daytime in holes in the ground, is liable to have the roof of its cavern fall in from time to time. When such is threatened, it arches its back to steady the falling mass until it sees what is going to happen. Consequently when the animal is touched on the back, anticipating a fall of earth it stands up to press against the roof. It is stated that a lad in Victoria, many years ago, climbed into the entrance of an occupied wombat's burrow. The disturbed animal started to come out and in passing the young man feeling pressure on its back immediately, raised its back to support the supposed fall of roof and pressed its victim against the roof, killing him.

Injuries from Birds.

Crow-Shrikes and Butcher-Birds.

The black-backed and white-backed magpies (*Gymnorhina tibicen* and *leuconota*) are known to become very vicious during the nesting season, swooping down and almost striking the heads of passers-by, especially children. The attack is so sudden and unexpected and the whirr of the wings so startling that great terror is often created in the minds of children; it may be necessary to shoot particularly offensive birds. One such bird shot near Adelaide in 1923 proved to be the male. Cole[7] records a nasty wound being inflicted upon the neck of a lad passing near a nest of these birds.

Mr. Neville Caley has informed me that a butcher-bird (*Cracticus destructor*) attacked him once when near its nest, striking him on the side of the face near the eye and drawing blood. Mr. Morse has informed me that his brother once threw his cap at a butcher-bird which had attacked him, with the result that his head was cut in many places and was covered with blood.

Cassowaries.

The following reference to deaths from attack by one of these birds is recorded in *The Emu*.[8] It is pointed out that these birds are rather shy and elusive in the wild state, but that in captivity they are apt to become aggressive and cause injury from their sharp claws. In Papua a large cassowary that had been reared in captivity, afterwards went "bush," but often came back to fight the village people. Orders were given that no one was to go about alone. A man, Tauno, went to his garden; as he did not return his mother went to look for him and found him dead with a very big cassowary near by. This attacked the woman and so injured her that she died. The magistrate who held an inquiry, had no doubt that these two people had been killed by the bird.

Injuries from Fishes.

Shark-Bites.

In *The Australian Practitioner*[9] an account is given of a case of "Severe Lacerated Wound of the Leg, Caused by the Bite of a Shark; Amputation; Osteoplastic Operation." The patient, a boy aged eleven years, was under the care of Mr. Cecil Morgan. He was bathing at Balmain, Sydney, in sixty centimetres (two feet) of water, when he was seized by the leg. He lost the entire soft tissues of one leg below the knee. "The vessels having been

torn, bleeding soon ceased." At the date of publication a good result after the operation was anticipatetd.

In December, 1916, a man, aged forty-one years, was bathing with his wife in Middle Harbour, Sydney, when he was seized by a shark. According to the newspaper account his wife and a neighbour rushed to his assistance, frightened the shark away and brought the victim ashore. The shark's teeth had almost encircled the man's body, tearing the chest wall away and exposing the heart and lungs, besides severing the right forearm below the elbow. One of his legs was cut clean to the bone at the knee, the reporter surmising that this wound was caused by the shark's fin.

In The Medical Journal of Australia,[10][11] two very interesting cases of non-fatal shark-bites are reported with photographs of the injuries. In one case, that of a man aged twenty years, under Dr. Harold Miller's care at Townsville, the photograph shows the side of the abdomen and buttock eleven days afterwards, exhibiting a large circle of tooth-marks. The shark had been unable to get a sufficient grip and had then tossed the patient several feet out of the water and left him. The other case, which is referred to by Dr. Charles Wassell and Dr. Field-Martell,[12] was that of a Thursday Island native who had been attacked under water by a shark which had taken his head into its mouth. Though unarmed, by struggling and force he liberated himself. The photograph shows the teeth-marks on his neck.

In the autumn of 1922, two fatal cases of shark-bite occurred in the neighbourhood of Sydney. Dr. H. K. Porter, Medical Superintendent of the Sydney Hospital, has kindly given me a short account of the fatal injuries received by a man who was admitted there in a very collapsed condition, dying a few minutes after admission. He had a semilunar wound on either side of his right elbow about 17.8 centimetres (seven inches) in length, a lacerated wound on his right arm in the shoulder region severing all structures save the humerus and several small punctured wounds, apparently teeth-marks, in the left elbow region.

For notes on the second case I am indebted to Dr. O'Gorman Hughes. In this case death was due to secondary gas gangrene. The patient, a lad aged twenty, was admitted to St. Vincent's Hospital at 11.30 a.m. on March 2. He was suffering from very severe shock and had a large lacerated wound on both buttocks extending from the top of the sacrum right down to each side of the anus. The glutei muscles on either side were cut through and the sacrum exposed. The musculo-cutaneous flap thus formed was hanging down between the thighs, the lower part of the flap being attached. In the afternoon when the patient had recovered from the shock, he was given an anæsthetic and the wound carefully examined. There was no foreign matter detectable in the wound and very little bleeding, so after washing with sterile saline solution the muscles were brought together and the skin sutured, a drainage tube being inserted on each side. Early next morning the wound became offensive, so the sutures were divided and the cavity opened up. The swabbing showed the presence of *Bacillus capsulatus aerogenes* and probably of *Bacillus Welchii*, though the latter organism was not fully identified. Later on in the day the clinical picture was one of typical gas gangrene which spread very rapidly and led to death soon after midnight.

Numb-Fish.

McCulloch[13] describes his experience with the numb-fish (*Hypmarce subnigra* Dumeril) at Port Stephens, New South Wales, in September, 1919.

> In throwing the fish out on to the beach with a wet board I received a sharp shock which resembled a blow on the biceps. After stranding it, I and others received about fifty successive shocks in a space of about ten minutes before we killed it by severing its spine. The shocks were intense at first though not painful and could be felt through one's whole body, but they gradually became weaker; the last discharge was a feeble one and was produced after the fish had been eviscerated and was apparently dead. Each discharge appeared to be associated with a convulsive contraction of the disc, the edges of the pectorals being turned over towards the middle of the back and distinct shocks were felt from all parts of the body, including even the ventral fins. By placing a foot upon the disc when the discharges were somewhat reduced in power, we felt the shocks simultaneously in the same muscles of both legs. A remarkable feature of the electric discharge was that it could be conveyed from the water up a wet stick or while the fish was lying upon the wet sand; the specimen was eventually killed with a knife tied to a dried stick, which conveyed no shocks.

At Encounter Bay a few years ago one of these rays was caught in a crayfish net and in handling it inflicted electric shocks on the fisherman who had caught it.

Injuries from the Spines of Fishes.

In February, 1917, by invitation, I was present at a meeting of the Amateur Fishermen's Association of New South Wales, when a discussion took place on poisonous and venomous fishes and their effects. Amongst the notes contributed by members the following may be mentioned.

Cat-Fish.

Mr. Richardson stated that the spine of one of these fishes had penetrated through his boot into the toe, the spike not coming out until six months later. Immediately after the wound he experienced shivering which kept up for some hours. The pain was relieved by applying hot water. He had been stabbed several times since, once on the thumb, but the discomfort had been less. An onion had been applied to the wounds. Another member had suffered "agony" from twelve to fourteen hours after being pricked by the spine, the pain being like holding his thumb in the fire. A member who had been fishing at Watson's Bay, complained of "terrible agony," relieved by placing the hand in hot water. He referred to the popular idea that the pain would keep up until the turn of the tide. As this would probably mean twelve hours later, it coincides with the expected duration of the pain. Another sufferer felt no pain whilst the hand was kept wet in salt water. Mr. Bebb was wounded about 10 p.m. and suffered pain all night, keeping his finger for relief on a hot bar. Mr. McGrath

recorded Mr. Elliott's experience on the Hawkesbury River, when he received a wound which gave rise to a swelling the size of a small egg. He had no sleep all night and it took six to eight weeks to recover from the injury. Whisky and hot onions were applied.

Mr. J. Serbutt has supplied my friend, Mr. C. Thackeray, with the following account of the effect of a puncture from the spine of a catfish on the Hawkesbury River. The pain was like that of a hot wire pressed into the flesh. He had difficulty in causing the wound to bleed. The pain being very severe he applied some moist tobacco to the wound, which gave slight relief, and bandaged it. He had to hold his arm in a perpendicular position all the way back to Sydney. At home hot fomentations and a poultice were applied and the pain gradually died out about six hours after the infliction of the wound and he had felt no ill-effects since. On the second occasion the effects were very slight; he experienced a similar pain, but it passed away in about an hour's time. And in the case of a third wound, the effect only lasted about ten minutes.

The Fortescue.

The fortescue (*Centropogon australis*, Gunth.) was referred to by several members as having spines which produced temporary pain in one case and in a case recorded by Mr. Stead where the spine was five centimetres (two inches) long the feeling was like that of a red-hot needle. Mr. Bebb stated that the spine of the red rock cod, from wounds of which he had twice suffered, gave rise to considerable pain lasting all day. Mr. Serbutt recorded being stung by a rock cod and suffering severe pain. Mr. Thackeray mentioned people being wounded by spines of the bullrouts (*Notesthes robusta* Gunth.) on the Hastings River whilst wading. Mr. Stead mentioned a case in which the pain from such a wound by the bullrout was so severe that the patient did not feel boiling water into which the wounded foot was plunged. The patient lost his foot.

Stingrays.

Several members recorded the effects produced by stingrays. Thus Mr. Brown, wounded in the palm of the hand, stated that he did not suffer much pain and applied an onion as a remedy. Mr. Davis recorded a case which occurred on the river bank near Brisbane when the end of a stingray spine entered the foot which festered, the end of the spine not coming out until a year later. Mr. Harry White recorded an injury from a small ray where the spine penetrated the knuckle. The arm was powerless ten minutes afterwards. Permanganate of potash with hot water was applied. The hand and forearm became much swollen. Mr. Stead stated that the little stingray produced as severe injuries as the large one. A piece of the spine in the leg produced tingling and burning like the effects of the spine of the catfish.

Other Injurious Fishes.

Other species of fish were referred to as being injurious in various ways at the meeting of the Amateur Fishermen's Association. Part of the spike twelve millimetres (half-inch) long of the dorsal fin of a jew-fish (*Sciæna antarctica*) led to swelling later which had gone down by next morning. Mr. Pierce stated that the slime from a mackerel (*Scomber colias*) getting into a cut had led to illness for weeks (? an infected wound). Mr. Thackeray mentioned that Sir James Graham stabbed on the finger by a flathead (*Platycephalus* sp.) had suffered excruciating pain for a short while. The black trevalli, he said, was poisonous (the skin perhaps), but Mr. Stead said that no ill-effects were known from fresh black trevalli. Other injurious fishes mentioned were the dolphin fish (*Coryphæna*), the frog-fish (Fam. *Antennariidæ*), black-banded and like a tad-pole, with a non-perforated spine on the head, stargazers in deep water, such as the stone-fish (*Kathetostoma læve*) with a spike on each side of the head covered with skin, a kind of red rock cod (*Synancia horridum*) in Queensland, the common red rock cod (*Scorpæna cruenta*), the pain sometimes very severe, the spiky flathead (*Thysanophrys* ?) with a spine twelve millimetres (half an inch) long, the velvet fish (*Aploactis milesii*) the spikes of the fin of the black trevalli (*Siganus nebulosus*) and a small fish like the fortescue (*Centropogon australis*) giving rise to very severe symptoms.

Poisoning from Eating Toado-Fishes.

These fishes, belonging to the family *Tetraodontidæ*, are common and are frequently caught. They have a slimy surface, are frequently spotted and blow themselves up into round balls and then, when thrown into the water again, float away. Their poisonous properties when eaten have been long known. The following additional records have been collected.

According to James Backhouse[14] three persons in a family near Hobart Town lost their lives in 1831 by eating toad-fishes. These are probably the cases referred to by Aflalo.

In November, 1840,[15] an aboriginal prisoner at Rottnest died from eating a "blow-fish," which was presumably one of these toad-fishes.

In the *New South Wales Medical Gazette*[16] Dr. Bennett reports a death from eating toad-fish.

In the next volume of the *New South Wales Medical Gazette*[17] G. J. Pattison apparently controverts the poisonous qualities of these fishes. He ate, on one occasion one, on a second four Sydney toad-fish, skinned, cleaned and cooked, without ill-effects. Cats and a dog ate them without suffering.

In a memorandum on poisonous New South Wales fish, written in 1918, Mr. David G. Stead (then of the State Trawling Industry) mentions that the only known fish poisonous to eat in New South Wales waters were the toad-fishes and possibly the porcupine fishes. There was, however, little direct evidence on animals of such poisonous effects, though he had heard of several reports of cats and a hazy one of a dog, having been killed by eating "toados." He wished therefore to place on record that Dr. Elliott personally saw a Persian cat eating one of these fishes, shortly after which

it died. Mr. Stead suggests that the poison lies rather in the skin than in the muscular tissues.

A. J. Metcalfe, of Thursday Island (The Medical Journal of Australia, December 1, 1923, page 571), describes two deaths from eating these fishes. Two Malays out of bravado ate a "puff-toad" at mid-day and felt no ill-effects. At 5.30 p.m. they ate the liver, which is said to have been a large one. This had been left on the ashes of the fire from the mid-day meal and was only partly cooked. Within a few minutes both complained of being ill. This was followed in five minutes by loss of sensation and paralysis of the fingers, hands and arms. Paralysis quickly spread to the tongue and throat and they were unable to speak. It next attacked the lower limbs and gradually spread upwards. The first man died in half an hour; to the next man an emetic was given and he vomited, but died in three hours.

Mr. Thackeray states that a toad-fish was given to a cat to eat. It ate the tail only and soon died.

Injuries from Invertebrates.

Cungevoi.

One speaker at the meeting of the Amateur Fishermen's Association referred to the test of the large yellow cungevoi (*Ascidia* or sea squirts) as being full of barbed spicules. Another referred to cungevoi spines remaining in the hand for weeks after handling.

Purpura.

One member of the Amateur Fishermen's Association mentioned that a whelk (*Purpura*) common on the New South Wales shores, had a juice in the flesh which was irritating to the eyes and that it also had a burning taste when cooked.

Scorpions and Centipedes.

Backhouse[18] states that scorpions were common in Tasmania in 1832 amongst decayed timber. Being of small size, their sting was not much worse than that of a wasp. "A green, venomous centipede, about three inches long, is found in similar situations and among stones. Its bite is considered worse than the sting of the scorpion, producing gangrenous inflammation."

Ticks.

Hovell, in his "Diary of a Journey to Port Phillip in 1824-1825"[19] refers to a tick like the one in the Five Islands Mountains (Illawarra District) "which buries itself in the flesh and would in time destroy either man or beast, if not removed in time."

Backhouse[20] seems to be the first to describe the paralytic effects following, in some cases, the bite of the bush tick (*Ixodes holocyclus*). He is referring to Coolangatta on the Shoalhaven River of New South Wales in 1836 and says: "The wattle tick, a hard, flat insect, of a dark colour, about the tenth of an inch in diameter and nearly circular, in the body; it insinuates itself beneath the skin and destroys, not only sheep, but sometimes foals and calves. Paralysis of the hinder quarters often precedes death in these cases. Sometimes it occasions painful swellings, when forcibly removed from the human body, after having gripped its anchor-like head and appendages in the skin. To prevent this inconvenience, we several times made them let go their hold by smearing them over with oil or with wet tobacco-ashes."

Mr. Neville Cayley informs me that tick-bites (probably those of *Ixodes holocyclus*) lead in his case to redness and swelling round the "bite," with a fine yellow central point of dried serum. The adjacent glands, it may be in the neck, groin or axilla, swell and become hard and shotty.

Henry Tryon[21] refers to the tick *Ixodes holocyclus* as causing paralysis in man.

A scientific colleague of mine in Sydney has given me the following account of his personal experience with infestation by this tick and the resulting toxæmia. The ticks with which he became infested, were larval ones which had probably just emerged from the egg. In all probability he had sat down in the bush on or near the place where a female tick had laid a great bundle of eggs and these had just emerged:

> March 17.—Visited the bush at Newport and searched for botanical specimens. I was often stooping down and using a trowel and was also on the hands and knees. The mosquitoes were very bad. On the return journey itching of the body was noticed which was attributed to mosquito bites, and itching on the head which was attributed to small insects or spiders. On reaching home I washed with carbolic soap all over, had a hot shower-bath and went to bed. March 18.—Noticed a rash on the legs and arms on rising. A small black spot at the head of each pimple was seen under the magnifying glass to be a small tick. I visited the Board of Health where each tick had alcohol applied to it and was then removed by the aid of fine forceps, the process of extraction taking several hours. The ticks were most numerous on the left leg and between the legs there were several hundred. After removal of the ticks the body was washed in a solution of *liquor picis carbonis detergens*. Calamine ointment was applied to parts of the legs and I went to bed and slept fairly well. March 19.—The itching was intense especially where the calamine ointment had been employed. I washed the legs with carbolic soap, dressed and started to business, but the itching was intolerable and I returned to take off all my clothes. A sense of incapacity was noted. I tried to read the paper, but with little success and the success was little greater in attempting to read the contents of a book with which I was already familiar. I bathed the parts in warm water and then rested somewhat in a state of coma. The pimples had now swollen considerably and some had begun to discharge a clear, yellow fluid which after a time became solid and brittle. I bathed the parts again before going to bed. By now all the pimples were largely swollen and discharged freely after bathing; the tips of many had been scratched off. March 20.—A certain amount of pain as well as intense itching was felt in the left leg. The swelling of the bitten parts was now considerable especially on the thighs, where the bites were very numerous. Quite large lumps of bright scarlet colour were raised. Lower down the legs the lumps were not so large and were purple in colour. Most relief was obtained by bathing with hot water and mopping up the yellow fluid with a handkerchief as long as it discharged. On this day in addition to inability to apply myself to anything I had a slight headache. Instead, however, of the usual feeling of pressure in the head, the feeling was as if the external surface of the brain were contracting. I slept fairly well till midnight after going to bed at 10 p.m.. I then awoke with a feeling of great exhaustion. I felt my pulse which was steady but slow, being 48 per minute. I rose, paced the room and took a few sips of neat whisky. I cannot say that I experienced any sense of fever throughout. I had no thermometer so could not take my temperature. I stayed awake now

for about two hours. March 21.—My general feeling in the morning was that I was better. My pulse was 50. The intense irritation from the bites was less, the lumps had begun to subside and the discharge had decreased in amount. I was able to read with interest, but a slight defect in the sight seemed exaggerated. (My right eye has rather "longer" sight than the left. This now seemed so marked that it was easier to read with the left eye alone than with the two together.) The intervals between the intense itching became longer and the painful irritation less. The bites which I had on the penis, were the first to heal. Two upon the *glans* gave hardly any trouble and one of these among the many hundred bites that I had, was the only one to discharge a minute droplet of pus. My diet throughout had been hard-boiled eggs, stewed fruit, milk puddings, bread and butter, tea and a little whisky at night. On this evening I ate some celery and lettuce for tea. I had a violent headache afterwards and made several attempts to vomit, but without result. March 22.—The general feeling of well-being had increased. My pulse was 58. The swellings around the bites were much smaller and bright pink and when they itched, scratching gave relief. A comparison was made between calamine ointment and alcoholic solution of picric acid as a means of relieving the itch. No difference could be noted between the areas treated with these specifics and the untreated areas.

A differential blood count of two hundred cells was made by me, the date of which in my notes is March 24 or a week after the ticks had attached themselves. From memory I am inclined to think this date is erroneous and that the films were made on the day after infestation. Of the cells, 56% were polymorpho-nuclear cells, 4.5% small lymphocytes, 1.5% large lymphocytes, 1% transitional cells, 6% eosinophile cells (rather unevenly distributed, ten being seen in the first hundred cells and only two in the second hundred) and 0.5% mast-cells. No parasites were detected.

Mites.

Le Souef ("Wild Life in Australia," page 284) refers to small red scrub ticks in North Queensland which were met with under a tree where shining starlings had their nest. These burrowed and caused irritating lumps. They were probably really mites and not ticks.

Dr. W. N. Horsfall[22] refers to papular rashes in children due to starling mites.

A. N. McArthur[23] describes a case of irritation from starling mites which had found their way into a bath-sponge.

Henry Tryon[21] mentions a blood-sucking mite, *Dermanyssus* sp. (Gamasidæ) which in Brisbane causes considerable irritation whilst occurring as a protonymph on man.

Before the Medical Sciences Club of South Australia[24] I have described the occurrence of irritating crops of urticarial papules due to *Dermanyssus gallinæ* contracted from fowls.

Herman Lawrence[25] refers to infestations of human beings with *Dermanyssus avium et gallinæ* with *Acarus scabei* of the cat and with *Acari* which he labels *A* and *B*. He also mentions the occurrence of *demodex rosacea*. In the same publication previously[26] he describes *demodex impetigo* in man in Australia.

I. Clunies Ross[27] refers to the occurrence of the itch-mite of the cat (*Notoedres cati*) in Sydney and suggests its possible transmission to man.

R. W. Cilento[28] has an article on mite infestation of man.

Spiders.

Professor (later Sir) T. P. Anderson Stuart, in his Presidential Address to the Royal Society of New South Wales in 1894[29] referred to some unsuccessful animal experiments he had carried out with extracts of the glands or of the entire red-backed spider (*Lathrodectus hasselltii*). He suggested that there may be seasons of the year when the spiders are relatively innocuous. In 1921 and 1922 several accounts of "bites" by these spiders were given in THE MEDICAL JOURNAL OF AUSTRALIA. Dr. J. W. Sutherland, of Narromine, New South Wales,[30] referred to the "bites" being common, usually followed by a week of continuous aching and pain and drenching sweats. He had found incision and rubbing in potassium permanganate solution successful. Dr. D. R. Wallman, of Gilgandra,[31] says that most of his patients had been bitten on the buttocks or genitals whilst at stool. Pain, chiefly in the legs and back no matter where bitten, came on in three-quarters to two hours. This sometimes required morphine. The pain was followed later by a sense of tingling and of pins and needles in the legs and feet. Profuse sweating commenced about six hours after being bitten and lasted three or four days in severe cases.

Dr. R. E. Nowland, of Wyong,[32] records a case in which the penis was affected. The symptoms were similar. The pain extended to the pelvis and up the spinal column. Morphine was still required for pain in the legs on the second day. Sensations of pins and needles were felt in the hands and legs and there was free perspiration.

Dr. Burston, of Adelaide, has kindly given me the following account of a child, aged two years and nine months, who playing near a woodshed was bitten on the morning of November 19, 1922. The child cried at once and pointed to the spider crawling away. The wound was painted with iodine. The child was very "teasy" and fretful all day, "off" its food, not thirsty, but sweating a good deal. The injured area seemed very painful. Seen by Dr. Burston at 7 p.m., the patient was fretful and crying; there was some local tenderness with a minute puncture, the pulse was about 130, the temperature was normal and the tissues under the eyes were rather puffy (they were not so normally). Purgatives were given and next day the child seemed nearly well.

Silver Weed.

Phylum Molluscoidea, Class Bryazoa. *Zoobotryon pellucidum*, Ehrenberg, a zoophyte with a number of synonyms, is known to fishermen and oyster culturists in New South Wales as "silver-weed" and covers many miles of the floor of George's River. It kills oysters and other shell-fish, Mr. C. Thackeray informs me, by smothering them and by exuding a juice which eats the hard parts away. Fishermen find it collecting round their anchors and anchor-ropes and have to tear it off their lines when drift-fishing. It appears to be widely distributed in temperate and tropical zones.

Fishermen who get the liquid enclosed in the cylindrical jointed interlaced parts of the weed on their hands and afterwards rub their eyes with the hands, may suffer from a sharp burning sensation. Mr. T. Whitelegge points out that these zoophytes have no stinging cells and consequently the irritation must be due to the dermal secretion which affects the tender skin of the eyelids and inside the nose. Mr. Thackeray, to whom I am indebted for this information, personally experienced the unpleasant effects, for in handling "weed" off the Kellick rope he squeezed it and afterwards rubbed his eyes with his wet hands. A burning sensation resulted which persisted for about a quarter of an hour, gradually lessening in amount.

Leeches.

Hovell in his "Diary of a Journey to Port Phillip in 1824-1825,"[19] under the date December 9, 1824, near the Forlorn Range or Doubtful Range, refers to annoyance from "mountain leeches," like those met with in the Five Islands (Illawarra) district.

Physalia Pelagica.

At the meeting of the Amateur Fishermen's Association of New South Wales already referred to, reference was made to the "slime" of the "blubber" injuring fishing nets by rotting the strings away. The use of wet sand to abrade the human lesions followed by hot foments, was mentioned. One sufferer referred to pain in the groin lasting for hours whenever his feet or legs were affected. Mr. Richardson attributed an itching sensation from handling a rope and from immersion in the water to the *Physalia* (Portuguese man-of-war). Mr. Bailey had known of several victims in whom lumps the size of peas had appeared; one had had to go to hospital; pain had been more severe than that from a catfish; some had been ill for two days. Mr. Pierce mentioned a large "blubber" as causing a large blister; the patient had had to be carried out of the water, but in half an hour was better after cold fresh water had been applied.

Coral-Cut.

R. W. Cilento[33] refers, as requiring investigation, to a complaint called "coral-cut" on the coast of Queensland. Presumably this is some chronic infective process following cuts from living(?) coral.

Charybdæa.

Mr. C. J. Hachett informs me that near Glenelg the jelly-fish *Charybdæa* sp. frequently stings bathers, though out of the water it can be handled with impunity. In March, 1924, he was stung probably by this species at Seacliff, South Australia. He first felt a pain like a pin prick which was persistent. The pain extended along a line about fifteen centimetres (six inches) in length over the shoulder. This line was the seat of an urticarial wheal. The pain and rash persisted for twenty minutes. A warm solution of boracic acid and also sodium bicarbonate relieved the condition.

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DEATHS FROM TICK PARALYSIS IN HUMAN BEINGS.

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THE occurrence of cases of paralysis in human beings as the results of tick infestation in the eastern coastal regions of Australia is now well recognized. The cases actually on record, however, are few and as far as I have been able to trace confined to those reported by Bancroft,[1] Cleland,[2] Eaton[4] and Strickland.[9] Among these occurs the only case of death hitherto recorded (Cleland). The occurrence of a recent death at the Coast Hospital from tick paralysis therefore seems worthy of record and at the same time it has been thought expedient to endeavour to trace other deaths which have occurred, though not recorded in medical literature. The question has assumed some importance through statements appearing in one of the daily papers to the effect that a considerable number of cases of tick paralysis were occurring and that such cases were being wrongly diagnosed as infantile paralysis. Inquiries made from the Government Statistician elicited the information that between 1913 and 1921 four deaths had been been certified as due to ticks. Further inquiries were then made from the medical practitioners certifying the deaths and as much information as possible obtained in regard to each case. Unfortunately the data thus obtained proved to be very meagre in some instances, but it has been thought well to include it herein. In addition one or two other cases of earlier date which have come to my knowledge, are also included. My thanks are due to the medical men who saw the patients, for very courteously placing their information at my disposal. Doubtless other cases have occurred and it is to be hoped that any medical practitioner possessing information regarding deaths from ticks will place the same on record.

It is practically certain that the tick responsible for paralysis and death in human beings is the common scrub tick *Ixodes holocyclus*, Neumann. Unfortunately in only one instance was it possible to identify definitely the species, but it has now been conclusively proved that *Ixodes holocyclus* is the species responsible for paralysis and death in dogs (Dodd). Further information is required in respect to the distribution of this tick in Australia. It is very common throughout the coastal districts of eastern Australia and has also been recorded by Nuttall and Warburton[8] from Western Australia and from India. It is not definitely known, however, whether the tick extends far inland. I have no records, for instance, from the Blue Mountains, though I have seen specimens from the Bunya Mountains in Queensland.

In nature the tick is a common parasite of marsupials, occurring also on rodents and birds. In none of these animals is there any evidence that the tick is injurious. In dogs on the other hand well defined symptoms occur following a definite syndrome and ending fatally if the tick be not removed. It has also been suggested that this tick exerts a controlling influence in preventing the establishment of the fox in the coastal districts.

It is not proposed to deal with the life history of the species; that has been made the subject of special research by Mr. Clunies Ross at the Veterinary School, University of Sydney. But it may be mentioned that it is the female tick alone which appears to be toxic and that symptoms do not supervene until the tick has been attached for at least three or four days and has reached a certain stage of repletion.

The question as to whether the paralysis is due to a toxin or to an infection, bacterial, parasitic or ultra-microscopic, is as yet uncertain, but the more recent views favour the idea that the condition is a toxæmia due to a toxin secreted by the tick itself.

Notes of Cases.

Eden Case.

The Eden case has been fully reported by Cleland[2] and is here included to complete the series.

The patient was a girl aged thirteen months and the tick was attached behind the left ear. In the opinion of the medical attendant (Dr. G. B. D. Macdonald) death was caused by paralysis, affecting especially the respiratory tract. From the history it appears that the tick was present for at least two days before it was discovered, but the size (12.7 millimetres by 3.2 millimetres) would appear to indicate that it had been there longer. This is supported by the history that the child became ill on the date the tick is supposed to have become attached, whereas it is probable that the tick would have been *in situ* for at least a day before symptoms became manifest.

Auburn Case.

N.R., a male, aged sixteen months, was admitted to the Coast Hospital on November 21, 1923, and died on November 23, 1923. The history obtained from the mother was that the child had not been well for one month; it appeared to be tired and frequently "off its food." On November 20, 1923, he fell down and on being picked up was not able to walk; a little later as he was not able to stand, he was put to bed. Next day he appeared to have some paralysis of the face. A doctor was called in who suspected polio-myelitis encephalitis and secured the patient's admission to the Coast Hospital. The following particulars were furnished by Dr. Millard, Medical Superintendent, Coast Hospital. On admission, the temperature was 36.9° C. (98.4° F.), the pulse rate 160 and the respirations forty. The child was flushed, his breathing rapid with stridor; he had an anxious expression; his pupils were dilated and reacted to light. There was paresis of the masseter muscles; when a finger was put into his mouth the child did not bite. The tongue was not moved when it was pricked with a pin. There was great difficulty in swallowing food, about one-half of the food was regurgitated, partly through the nose. There was mucus in his throat which he apparently could not expel.

Movement of all the limb muscles was elicited by pin prick, but was not vigorous. The knee jerks were elicited on the right side, Babinski's sign was present on the left side. There was nothing abnormal detected in the circulatory or respiratory systems.

On November 23, 1923, the child could not swallow at all; his breathing was rapid and stertorous; cyanosis was present. The pulse was rapid and soft, 168, the temperature was 37.2° C. (99° F.).

A tick was discovered in the scalp half an hour before death. The mother had noticed a lump there several days before, but thought it was a sore and applied ointment.

Oxygen and stimulants were administered without effect. The child died at ten o'clock. The medical attendant had noted that after admission the child had steadily lapsed into a state of generalized paralysis and coma.

A *post mortem* examination was made that afternoon and the brain and spinal cord removed for further examination. Macroscopically nothing obvious was detected. The site of the tick bite showed some inflammatory reaction. The child had long hair and there were some sores on the forehead and the tick which could be felt through the hair, had been taken to be one of these sores.

Sections were made of various parts of the brain (medulla, pons, optic thalamus and cerebral cortex) and spinal cord (cervical, dorsal and lumbar regions). All portions of the brain showed intense engorgement of the vessels with the presence of numerous small newly formed capillaries; in places diffuse infiltration with small round cells apparently plasma cells was noted; there were, however, no perivascular sheaths or "cuffs" of small round cells. Some of the vessels contained polymorpho-nuclear leucocytes. In the spinal cord similar congestion was present with some small hæmorrhages. Emulsions of the brain and spinal cord were made and injected into laboratory animals. Two rabbits were injected intra-cranially, one with brain emulsion and the other with cord emulsion. Neither rabbit showed any evidence of paralysis or other ill-effect. Two white mice were injected subcutaneously with brain emulsion, one of these died in two days.

Two further white mice were injected subcutaneously with cord emulsion; both remained alive and well for months.

Two other white mice were injected intraperitoneally, one with brain emulsion and the other with cord emulsion. The latter died in two days. The brains of the two white mice which died, were sectioned and showed some congestion. Cultures from spleen, liver and heart blood showed the presence of *Staphylococcus aureus* and it was held that infection with this organism was probably responsible for the death of these two mice.

The tick removed from the scalp was secured and proved to be a female *Ixodes holocyclus*, not quite half replete. The probable time of attachment of the tick was not ascertained. The child lived at Auburn, but there was no history of the child having been in the bush immediately prior to the illness.

Wagonga Case.

C.M.L., female, aged three years, died on November 23, 1913, and the death was certified by Dr. A. Stuttaford in 1913. As it was impossible to obtain information from the medical attendant, inquiries were made from the Muruya Hospital and subsequently information was obtained from the father of the child. The following extract is taken from his letter: "The tick was on the chest on the left side nearly under the arm and it appeared to have been there, from appearance, about twelve or eighteen hours before it was discovered. The size of the tick was about O; it was not quite filled out round, it was a little flat. It is from the shape of the tick that we judge the time it had been in. When we discovered the tick was about ten o'clock in the morning and the child was helpless in her legs and she was in a high fever with convulsive turns which were about an hour apart and those turns were much closer towards evening and much stronger. Her death was the same day as the tick was discovered, about five o'clock in the evening. The doctor announced the death was due to blood poison from tick bite. I cannot say that she died from heart failure as the doctor did not say and he did not say that she had paralysis. After she was dead large black streaks showed down the left side."

Mullumbimby Case.

For information regarding this case I am indebted to Dr. Leighton Kesteven. The case occurred about 1904 and though no notes were made, Dr. Kesteven retained a clear recollection. I quote from his letter on the subject:

The mother brought the child (aged about thirteen or fourteen) to me one morning to "see if there was not something in her ear." On examination I found the tick, fully distended, fastened on the *membrana tympani*. The child was in a semi-comatose state and only made to give almost unintelligible answers with difficulty. I filled the ear with carbolic oil—1 in 40—and the beastie floated up, sting and all, intact. I administered brandy and strychnine freely, but the patient gradually sank and died about eighteen hours after. The paralysis was chiefly in the legs (she was hardly able to stand), but I do not recollect any other paresis.

Later in answer to a definite inquiry, Dr. Kesteven wrote again that the cause of death was undoubtedly respiratory paralysis.

Bellingen Case.

Information regarding this case is unfortunately meagre. It was mentioned to me by Dr. Lance Hunter, of Bellingen, who had seen the entry made by the late Dr. Myles in the hospital register. No notes were to be found in Dr. Myles's records, but Dr. Hunter was able to secure some information from the local chemist which definitely establishes the case.

From the Register of Deaths at Bellingen the following particulars were ascertained:

L.H.C., male, aged three years, died 1910, cause of death, tick bite. From the chemist it was learned that the site of the bite was in the centre of the forehead and caused a great deal of œdematous swelling over both supraorbital margins extending up over forehead.

Gosford Cases.

Two cases are registered as occurring in Erina Shire, the cause of death being certified as due to ticks.

These two patients are F.J.C., a male, aged two years, of Gosford, who died on October 9, 1916, and M.D., a male, aged ten months, of Matcham, who died on October 9, 1921. Dr. James H. Paul is given as the certifying doctor in each case. In answer to my inquiries Dr. Paul could unfortunately only give me information in respect to the second patient. The following excerpt is from his letter: "I have no data and can only recall the case at Matcham. The child had not been bathed that day and I was sent for when the child was dying. There was a large 'bottle' tick in the left carotid region and it was distended. I have often had cases of ticks in children and the tick has an uncanny sense of knowing where to attach itself. In one case the tick was out of sight in the auditory meatus. The same ticks are usually fatal to dogs, but cats usually recover."

Eastwood Case.

J.H.C.M., a male, aged three years, died on November 21, 1921; the death was certified by Dr. Cuthbert Hall as due to tick bite. In reference to this case Dr. Hall wrote: "He was only in the hospital (Parramatta) seven hours, the temperature was 102° F., no physical signs except

extreme cardiac weakness, pulse soft and threading. No paralysis of muscles. The father said he had found a tick on him some days before. . . . In the absence of any other physical sign or cause I could only attribute the death to toxæmia from tick bite. The father said he had been perfectly healthy up till then."

The child resided at Eastwood. Endeavours to obtain further particulars from the parents were fruitless as their present address could not be discovered.

This case would appear to belong to a somewhat different category to the others, as far as details of them are available, the absence of paralysis and the interval (some days) between the discovery of the tick and the death of the child are both noteworthy. Unfortunately none of the early history of the case is available; it would have been of interest to have ascertained whether there had been any transient paralysis either of limbs or of the respiratory apparatus. One would also have liked to ascertain the location of the tick and whether it was replete.

Reviewing the other cases it would appear that definite paralysis or at least paresis of the muscles was present in the Eden, Auburn, Wagonga and Mullumbimby patients, while information is lacking in this respect in the Bellingen, Gosford and Matcham patients. In the first four mentioned patients the legs appear to be most affected. Respiratory paralysis would appear to have been the immediate cause of death of the Eden and Mullumbimby patients and possibly also of the Auburn and Wagonga patients, though precise information on this point is lacking. Fever is noted in the Eden, Auburn, Wagonga and Eastwood cases. The records of the other cases are too meagre to allow of analysis.

Tick paralysis in man is recorded from British Columbia and Oregon in America due to *Dermacentor venustus*. The cases are recorded or discussed in several papers on the subject by Todd,[10] Hadwen,[5] Nuttall[7] and MacArthur.[6]

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Reports of Cases.

REPORT OF A CASE OF SPONTANEOUS RUPTURE OF THE HEART.[1]

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THE pathological condition present in the following case seemed of sufficient interest and rarity to warrant a report to this society.

Past History.

The patient, Mrs. E.M.G., was admitted to the Parkside Mental Hospital in January, 1912, at the aged of fifty-eight years. She was then suffering from chronic non-systematized delusional insanity to which she had been predisposed by a neuropathic inheritance. During her residence in the institution her mental condition made no improvement, as is usual with such cases and she gradually passed into a state of secondary dementia.

The physical condition is that which provides the interest. On admission she was in good general health and she continued in that state till 1921, when, in the course of the routine examinations required under Section 83 of the *Mental Defectives Act*, it was noted that *morbus cordis* was present. There is no further description of the condition present, but it would probably be the same as that found in many of our old people, namely diffuse apex beat associated with some dilatation and distant sounds. Whatever the condition at that time, it apparently remained well compensated, for the examination records of 1922 and 1923 show no advance in her cardiac disability. In fact, the patient was one of the most willing and energetic workers in her ward and she continued as such up till the day before her death. During the whole of her twelve years' residence in the institution it had never been necessary to send her to the hospital ward.

Present Condition.

At 7.30 a.m. on May 21, 1924, I was called to see the patient. The nurse in charge of the ward informed me that the patient had just had a bath in lukewarm water and was about to be dried by the nurses, when without warning she collapsed on the bathroom floor and her limbs twitched a little.

She was carried in and set upon her back in bed, but the patient turned herself on to her left side. She was in this position when I arrived, her arms being stretched in front of her and the thighs and legs flexed. The lips and face were deeply cyanosed and saliva was running from the mouth. The pupils were dilated, equal and fixed. No respiratory movements were visible, but a faintly flickering pulse could be felt at the wrist. Considering the deep cyanosis of the head and neck, the pallor of the remainder of the body was quite striking. I immediately went for restoratives, but when I returned in about two minutes I was informed that the patient had given a little gasp and died.

Probably fifteen minutes elapsed between the onset of the attack and the occurrence of death. Death occurred in her seventieth year.

Autopsy.

During the afternoon of that day I performed an autopsy of which the following is an abbreviated report.

On general survey the cadaver was that of a well-nourished woman looking much younger than her reputed seventy years. There was no sign either of external injury or of œdema of the subcutaneous tissues.

When the anterior part of the thoracic cage was removed, the pericardium was seen to be bulging and blue, the membrane containing a great excess of fat. A small opening into the sac was immediately followed by a gush of blood, approximately one hundred and eighty cubic centimetres (six ounces) flowing away as the incision was extended towards the apex. The heart then lay exposed, but enclosed in a clot about six millimetres (a

[1] Read at a meeting of the South Australian Branch of the British Medical Association on July 31, 1924.

quarter of an inch) thick which surrounded it; this, however, slipped away revealing the heart beneath, its epicardium being also heavily infiltrated with fat.

On closer inspection of the heart, several small, bright red ecchymotic patches were found on the surface of the right ventricular wall, but over these the epicardium was perfectly intact. However, along the outer convexity of the left ventricle were two slits. Each slit was about twelve millimetres (half an inch) long and filled with adherent clot, the lower of the pair being six and a half centimetres (two and a half inches) from the apex and the upper about twelve millimetres nearer the base. Each slit was surrounded by a small circular area of ecchymosis. The slits were parallel to each other and parallel to the line from the apex to the base along the convexity of the left ventricle. Through each of these a probe was readily passed into the cavity of the left ventricle. The left ventricle itself contained two small, slightly adherent clots, entangled among the *columnæ carneæ* overlying the internal aspect of the slits, in addition to a small quantity of fluid blood.

The whole myocardium was pale and flabby and heavily infiltrated with fat.

Both coronary arteries were rigid and calcareous. The left branch led directly to the upper of the two slits, but the vessel was too contracted to be traced right into it. Just after the vessel crossed to the left auriculo-ventricular border its lumen was especially contracted and at this place there was a small and rather adherent clot.

The heart weighed four hundred and twenty grammes (fourteen ounces) which is rather heavy for a female heart.

The remainder of the organs disclosed nothing of importance in regard to the causation of death. The lungs were apparently perfectly healthy. The brain contained no macroscopical lesion, though there was a very considerable degree of atheroma in the vessels at the base. In the thoracic aorta and the abdominal aorta there was only a very slight atheromatous change. The kidneys were remarkably normal for her age.

Comment.

The picture presented by this case is that of the ordinary myocardial degeneration due to the slow closure of the coronary arteries, but ending with one of the more rare types of termination, where the general weakening due to the anæmia from the slow closure has been followed by a sudden local weakening due to abrupt closure of one of the vessels. This probably occurred at the time of her bath, the exertion of which called for increased effort from the generally and locally weakened organ. Obviously the factor determining rupture is the relation existing between the pressure inside the heart and the strength of the cardiac wall and the chain of circumstances I have described, immediately sets the picture for that which eventuated.

Apparently rupture *per se* is not sufficient reason for the cessation of the heart's action, for in many of the recorded cases the patients have lived for times varying from several hours to days after the presumed time of rupture.[1][2] Then why should death ensue at all? Cohnheim[3] puts forward a theory to the effect that death is a type of suffocation and is due to the compression of the intra-pericardial portion of the superior *vena cava* by the blood in the pericardial sac. Such a theory will accord with the picture said to be typical of ruptured heart, namely signs of internal hæmorrhage with difficulty in the return of the venous blood into the thorax and heart.[4] Thus, the cyanosis and congestion of the face and neck with pallor of the rest of the trunk seen in this case fit entirely into the picture.

Incidence.

As regards the incidence of the condition, I would suggest that this is much higher than is generally supposed. I cannot find definite statements, but Jurgensen[4] gives it as once in several thousand autopsies. This does not agree with the experience here. From January, 1920, to the middle of July, 1924, the mortuary records of the Adelaide Hospital show a total of eight hundred and thirty-seven autopsies, while the Mental Hospital has fifty, thus placing eight hundred and eighty-seven under review. This series has yielded four cases of ruptured heart, which is equal to an incidence of 0.45% of the bodies submitted to autopsy in these institutions. The condition in three of these patients, namely: A.M., who died at Adelaide Hospital, October 24, 1922, at sixty-two years; J.R., who died at Adelaide Hospital on April 29, 1924; and my own patient, belong to the type of myocardial degeneration following coronary atheroma and terminating with thrombosis and rupture. Taking then the relatively high incidence and the frequency of the one type in the series, I think I may suggest that rupture is a more common termination than is generally supposed among people dying of a myocardial degeneration due to coronary atheroma.

The condition of the remaining patient of my series, namely J.P., who died at the Adelaide Hospital on May 28, 1920, at seventy years, belongs to another type. In this case a generalized pyæmia following pyelo-nephritis had terminated in a septic infarction of the left ventricular wall, abscess and rupture then following.

In conclusion I wish to thank Professor Cleland for permission to publish the pathological notes of the case and for the use of the mortuary records of the Adelaide Hospital and also Dr. Downey, Superintendent of the Mental Hospital for permission to publish the clinical notes.

References.

(1) Jurgensen, in Nothnagel's "Practice."

(2) G. A. Birnie: "A Case of Spontaneous Rupture of the Heart," The Medical Journal of Australia, January 21, 1922, page 68.

(3) Quoted by Nothnagel.

(4) Nothnagel's "Practice."

PLACENTA PRÆVIA IN THE EARLIER PART OF PREGNANCY: A NOTE.

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The relation of a low implantation of the placenta to abortion is not very sharply defined. Various opinions have been expressed as to its incidence and the question has attained some medico-legal notoriety.

De Lee[1] expresses the variation of opinion when he states: "Abortion is not seldom the result of it, though Hofmeier in sixteen years' experience could not find one. In several abortions the author found indubitable evidence of low implantation of the ovum." Eden[2] and Whitridge Williams[3] agree with De Lee and refer to cases and specimens. Jellett[4] quotes Webster as thinking "that many cases of abortion are due to this condition" and states that Webster possesses specimens of early pregnancies which clearly show a primary implantation near the *os internum*. On the other hand Herman[5] states that: "Abortions in which it can be ascertained that the placenta was being formed over the lower pole of the ovum, are very rare."

The two cases presented demonstrated the presence of a low implantation in cases of three months' pregnancies. The second case has the additional interest of demonstrating the association of a concealed hæmorrhage with a *placenta prævia* and illustrates the point mentioned by Fairbairn[6] of the differential diagnosis from hydatidiform mole.

Case I.—Mrs. L.W., *ætatis* thirty-four years, was admitted to the Women's Hospital on June 18, 1923. Her last menstrual period was on March 11, 1923. Towards the end of April she had some slight losing which cleared up. She commenced to lose a little at the beginning of June and had very severe floodings the morning before and the morning of admission. The patient was very exsanguinated; her temperature was 37.7° C. (99.8° F.) and her pulse rate 128 on admission. There was slight losing from the vagina, the cervix admitted the finger tip and the fundus was two fingers' width below the umbilicus. The

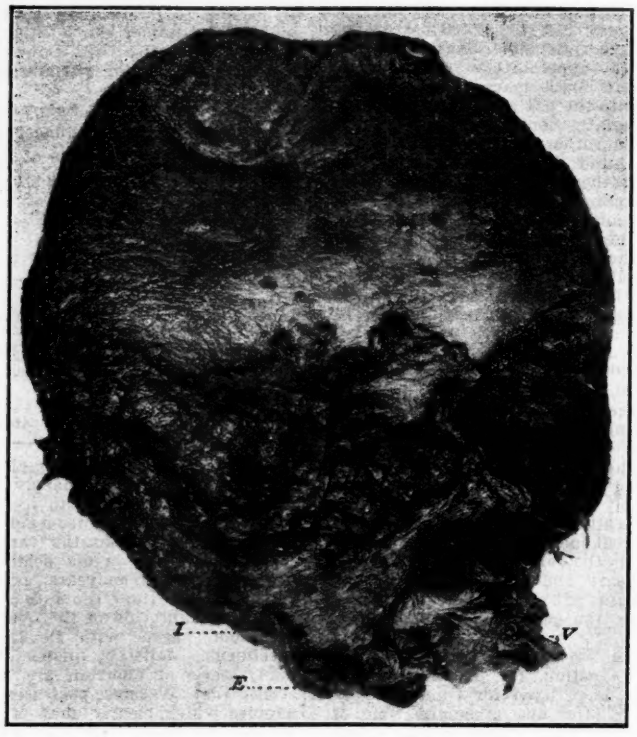
patient was treated for shock with salines and some morphine. She kept losing a little and it was decided to empty the uterus. On June 21, 1923, the cervix and vagina were plugged. At the time a small purplish mass was noticed at one side of the *os uteri* and the case was considered as possibly a hydatidiform mole with a metastasis,[7] especially as the uterus was larger than the period of pregnancy. By the next day there was no progress. On removing the plugging there was profuse hæmorrhage and the uterus was emptied through the *os uteri* which admitted two fingers. The patient did not pick up after the operation.

Post mortem examination revealed the placental site completely covering the lower part of the uterus with a prolongation extending down to the external *os* (see figure).

CASE II.—Mrs. H.F., *ætatis* twenty-eight years, was first seen on February 7, 1924. She had an easy confinement with her third baby seven months ago. Her periods began when the baby was two months old. There had been irregular losing, especially since November, very profuse at times. The patient was pale and on examination the uterus was enlarged half-way to the umbilicus. The cervix was soft and the *os uteri* closed; the fundus was rounded and tense, but not tender.

On February 9, 1924, examination under an anæsthetic revealed the fundus above the umbilicus. The cervix was tightly closed and the lower uterine segment bulging. The case was considered as possibly a hydatidiform mole, although Dr. Dinwoodie, who saw the patient first, had suggested *placenta prævia*. In view of the fact that the cervix was tightly closed (the cervix would not admit a sound!) and that the patient was very exsanguinated, hysterectomy was decided on.

On the uterus being opened after operation the placenta was found in the lower segment. There was considerable hæmorrhage into the cavity of the uterus and into the amniotic sac. The fœtus had developed to three months. The patient made an uneventful recovery.



Photograph of placental site in an abortion at three months.
I = Internal *os uteri*; E = External *os uteri*; V = Vagina.

Comments.

While these cases definitely illustrate the presence of a *prævia placenta* in the earlier months, I feel inclined to agree with Herman that *placenta prævia* is not a common cause of abortion. The statistics of the incidence of *placenta prævia* in the later months vary. Our own figures at the Women's Hospital show that there have been ninety-nine cases in 9,818 deliveries in the past five years. In other words the placenta is abnormally situated only once in one hundred pregnancies.

By analogy with the later months the incidence of low implantation in the early months should be rare. If, however, it is argued that low implantation prevents these fœtuses reaching greater maturity, this condition should be frequently detected in association with abortion in the living subject and in the *post mortem* room.

In the living subject it is often possible to detect the roughening of the placental site by digital exploration and it is very rare to find it low in the uterus.

In connexion with the *post mortem* findings I have asked Dr. C. H. Mollison his experiences at the City Morgue. He can recollect only one case of low implantation (and in this the placenta was attached low on the posterior wall) in a series which would number perhaps a hundred cases. It would seem, therefore, that while abortions are associated with *prævia placenta* in the earlier months, this condition is an uncommon one.

I must thank Dr. R. W. Chambers and Dr. R. H. Morrison for permission to publish the notes of their cases and Mr. W. H. Preston, of the Anatomy School, for photographing the specimen.

References.

(1) J. B. De Lee: "Obstetrics," page 464.
(2) M. D. Eden: "Manual of Midwifery," 1919, page 459, Figure 261.
(3) Whitridge Williams, "Obstetrics," page 932.
(4) H. Jellett and D. G. Madill: "Manual of Midwifery," 1921, page 711.
(5) "Herman's Difficult Labour," edited by Carlton Oldfield, page 355.
(6) J. S. Fairbairn: "The Practitioner's Encyclopædia of Midwifery and Diseases of Women," 1921, page 192.
(7) Whitridge Williams: "Obstetrics," page 661. R. T. Frank: "Gynæcological and Obstetrical Pathology" (Monograph Series), page 471, figure 319. J. Ewing: "Neoplastic Diseases," page 569.

FIBROIDS OF THE UTERUS.[1]

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THE first case is one of fibroid of the uterus of nine years' duration.

A.B., aged thirty-four years, had been married for ten years and had one child. I saw her in consultation with Dr. McDonnell on July 24, 1923. She was complaining of a dull aching pain in the left leg which had been present for two weeks and a swelling of the abdomen of nine years' duration. She had had one child about nine years before and she said that at the time her medical attendant had suspected twins, but had found a large tumour present instead of a second child.

Menstruation had begun at the age of fourteen years; it was regular every month and lasted for ten or eleven days with a large flow. She had had no miscarriages. She had not noticed any increase in the size of the tumour and had had no symptoms until about two weeks before I saw her. She had then experienced pain in the hip and after one week this had spread to the calf of the leg;

[1] Read at a meeting of the New South Wales Branch of the British Medical Association on August 14, 1924.

it had since been continual. The pain at times awakened her at night. At first she had not noticed any swelling of the leg.

When examined she appeared to be ill. Her temperature was 40° C. (104° F.) and her pulse rate 140. In the abdomen there was a large, firm swelling extending from the pelvis above the level of the umbilicus. It extended higher on the right side than on the left, reaching nearly to the costal margin. On the left side it did not extend above the umbilicus or quite over the iliac fossa. *Per vaginam* the uterus could not be definitely made out apart from the tumour. There was no tenderness on abdominal or pelvic examination. The left leg was firm, swollen, tender and slightly tense on pressure.

A provisional diagnosis of fibroid of the uterus or ovarian cyst causing thrombosis of the veins of the left leg was made.

The usual treatment for thrombosis of the leg veins was carried out. The swelling of the leg gradually subsided and she was able to move it about. Her temperature came down to between 37.°8 C. and 38.3° C. (100° F. and 101° F.) and the pulse rate to between 110 and 120.

On August 7, 1923, the right foot was found to be slightly swollen, but not painful. As her temperature was still about 38° C. and her pulse rate 110, it was thought that there was probably some degenerative changes occurring in the tumour and on August 16, 1923, it was decided to operate.

When the abdomen was opened the tumour was found to be a large fibro-myoma of the uterus. No adhesions were present and an ordinary supra-vaginal hysterectomy was performed without any great difficulty apart from the size of the tumour. She stood the operation very well. Her temperature on the day following the operation was 39° C. (102.2° F.) and her pulse rate 140. Two days after the operation she was troubled with some diarrhœa, but on August 20, 1923, that is four days after the operation, she said that she felt very well, better than she had been for some time. Her temperature and pulse rate were coming down and she looked much better. At ten o'clock that night she was suddenly seized with pain in the left side of the chest and cough and an hour and a half later she collapsed and died. Death was attributed to pulmonary thrombosis.

The second case was one of fibroid of the uterus causing a miscarriage and subsequently undergoing necrobiotic degeneration.

K.S., aged thirty-one years, married five months, was admitted on February 21, 1923, to the Women's Hospital, complaining of pain in the back and bleeding from the vagina.

Menstruation had begun at the age of thirteen years, had been regular every twenty-eight days and had lasted from four to five days with a moderate flow. She had had no leucorrhœa and no dysmenorrhœa. Her last menstrual period was on October 10, 1922.

The present illness had started with pain in the back six days before admission. It was a stabbing pain in the sacral region, radiating to the hypogastric region. She had been bleeding from the vagina for one day. During the night a fœtus about the age of five months was expelled. The placenta remained *in utero*. On the following day I removed the placenta under ether anæsthesia. It was very adherent and difficult to separate. The difficulty was mainly caused by a fibroid tumour situated on the anterior wall and producing distinct bulging of the anterior wall. The placenta had been placed above this and it was difficult to feel over the tumour to be sure that all the placental tissue had been expelled.

The fibroid felt about the size of an orange. The patient's temperature was between 37.2° C. and 37.8° C. (99° F. and 100° F.) for some days after the operation. She was discharged on the sixteenth day. She had lost a considerable quantity of blood and so was warned to report if anything abnormal was noted. It was decided to wait for some weeks to ascertain whether the size of the fibroid was decreasing.

On April 7, 1923, she was re-admitted. She had remained well until four days previously when she had commenced to bleed and she was passing large clots. She had no pain and no symptoms referable to the bladder or bowel.

The abdomen was soft and moved easily on respiration. There was a tumour palpable 6.25 centimetres (two and a half inches) above the *symphysis pubis* in the middle line. It was firm, not tender, more prominent on its right upper angle. The uterus was freely movable and was continuous with the tumour. Some smaller fibroids were palpable. The temperature and pulse rate were normal. As there had been no diminution in the size of the tumour and as the bleeding had increased, it was decided to perform supra-vaginal hysterectomy. This was carried out without any difficulty being encountered. The patient's temperature did not rise above 37.6° C. (99.6° F.) and the pulse rate did not exceed 88, except on one occasion until April 26, 1923, when a furuncle developed in the skin of the right ear. Two days later a furuncle appeared on the left ear. Apart from this the convalescence was uneventful. The tumour was sent to the University of Sydney. A report was received to the effect that it was undergoing necrobiotic degeneration.

The third case is one of multiple fibroids in a patient with a contracted pelvis.

L.L., aged thirty-four years, a *primipara*, consulted me on July 9, 1923, on account of pains in the abdomen and thigh which had been present ever since the beginning of her pregnancy.

Menstruation had begun at the age of fourteen years, it had been regular, every twenty-eight days, had lasted five days with a large flow. The last menstrual period had been from March 20 to March 25, 1923. She had had no dysmenorrhœa. She had been married for ten months.

The patient had always been healthy, but just before her marriage she had had an attack of mumps which had also affected the lower part of her abdomen.

She had had pains in the abdomen and thigh ever since the commencement of her pregnancy with heavy feelings and a sense of pressure on the bowels, causing a frequent desire to defæcate. The pains were intermittent and had been lessening a week previously, when they again became severe on moving. She was said to have been suffering from a threatened miscarriage. She had had no bleeding.

The patient was a short woman, being barely one hundred and fifty-two centimetres (about five feet) in height. The uterus was enlarged and reached the upper border of the umbilicus. A fibroid tumour was felt at the fundus, one below this to the left, and a larger one lower down on the left side. *Per vaginam* a tumour was felt in the posterior fornix. It was difficult to estimate the size of the uterus apart from the tumours. The pelvic measurements were: Interspinous 20.2 centimetres (eight inches), intercristal 23.8 centimetres (nine and a quarter inches), external conjugate 18.3 centimetres (seven and a quarter inches). She had a *pelvis justo minor*.

A month later, as she was complaining of the pain and her relatives were anxious that the pregnancy should be terminated, Dr. S. H. MacCulloch saw her in consultation and agreed that it was justifiable to try to get a living child, as the uterus appeared to be lifting the fibroids out of the pelvis in its growth. She continued to have some pain, usually at the time of the suppressed menstrual periods, but this was much relieved by rest. Apart from these times, the pain did not inconvenience her to any great extent. On November 30, she complained of more pain. A vaginal examination revealed dilatation of the cervix to the size of a shilling piece. A foot was felt presenting. By abdominal examination the back of the child was felt on the right side, but what appeared to be the head in the lower part of the uterus proved to be a tumour. The fœtal heart sounds were detected on the right side. Abdominal palpation had been limited on account of the risk of stimulating contractions and causing premature labour. As the *os uteri* was dilated, I sent her into hospital for rest in bed. Six days later the membranes suddenly ruptured and a living child, a male, weighing two and a half kilograms (five and a half pounds) was delivered within a few hours by Cæsarean section. So many fibroids were present, that a supra-

vaginal hysterectomy was carried out. Convalescence was uneventful.

Comments.

The points of interest in the foregoing cases can be briefly stated.

In the first case there is the absence of difficulties at the first confinement in the presence of such a large tumour and the length of time during which the tumour was present without causing any discomfort or symptoms. In the next place there is the sudden development of thrombosis in the leg with symptoms suggesting some degenerative changes in the tumour, although none were found. The absence of further pregnancies was also remarkable, as was the length of time the patient endured a tumour of so great a size.

In regard to the second case I wish to point out the difficulty experienced in making sure of the complete removal of the placenta, owing to the situation of the tumour and of the placenta. At the subsequent operation it was found that the uterus was quite empty. The second point in connexion with this case is the presence of necrobiotic degeneration unaccompanied by any symptoms of pain or tenderness or fever, such as are said usually to occur. The third point I wish to make is that in my experience necrobiosis occurs only on rare occasions in fibroids during pregnancy. This is the only instance of necrobiotic degeneration among many fibroid tumours I have treated in pregnant women.

The third patient was interesting on account of the double complication of contracted pelvis and multiple fibroids. Although the pregnancy threatened many times to end in an abortion, rest in bed enabled it to go until the fœtus was viable.

In the next place the breech presentation again demonstrated that the alteration in the shape of the uterus is a factor in mal-presentation. It was gratifying that a living child was obtained, in spite of there being so little uterine space available for its development. In the last place there was the difficulty of diagnosing the position of the child correctly until both the abdominal and the vaginal examination had been made.

Reviews.

"INSULIN" AND THE GENERAL PRACTITIONER.

THE busy general practitioner has seldom the opportunity of reading such a concise and practical account of a difficult subject as he will find in A. Clark Begg's "Insulin in General Practice."[1] During the last few years so much has been written on the subject of diabetes and so many different forms of diet have been advocated, that the mind of the practitioner has been confused and this little manual fills a long felt need. The first three chapters are devoted to diagnosis and a description of the more modern tests for sugar in the urine and blood.

Maclean's method of blood sugar estimation is described in detail, but it seems rather doubtful whether the general practitioner will largely avail himself of it, when he can readily forward the blood to a pathologist for examination. Emphasis is laid on the importance of blood sugar estimation to exclude the presence of renal glycosuria in which the sugar threshold is low and the percentage of blood sugar may be normal. In this condition acetone is not found and its presence excludes renal glycosuria.

The author next considers the elementary principles of dietetics with their application to the treatment of the disease and elaborates a method for the building up of a standard diet which will satisfy the caloric requirements of the body and at the same time provide a proper balance between the carbo-hydrates and fats and so prevent ketosis. He has found that for the average person of sixty-four kilograms (ten stone) weight doing a moderate amount of work, 2,300 calories daily are required. If this diet is made up of 70 grammes of carbo-hydrate, 80 grammes of protein and 185 grammes of fat, the essential principles of dietetics are satisfied, to wit that the protein should be from 1.0 to 1.5 grammes per kilogram of body weight and the fat should not exceed twice the carbo-hydrate *plus* half the protein (Woodyatt formula).

If sugar still appears in the urine after the patient has been placed on the standard diet, "Insulin" is administered in initial doses of ten units half an hour before breakfast.

He considers that the estimation of the blood sugar, at least on one occasion is indicated, but is not essential if acetone and diacetic acid are present in the urine, as their presence excludes the possibility of renal glycosuria and a low blood sugar content. The question of hypoglycæmia is next dealt with and useful suggestions as to the methods of combating its onset by the ingestion of sugar or orange juice and the administration of adrenalin.

The author concludes an extremely practical and useful book with an account of the various complications of diabetes—acidosis, coma, gangrene, septic infections and their treatment.

RADIOGRAPHY IN BONE DISEASE.

"A DESCRIPTIVE ATLAS OF RADIOGRAPHS OF THE BONES AND JOINTS" is the title of a book by Dr. A. P. Bertwhistle.[1] This book is an excellent one for reference and study by the practitioner or student. The author deals with the normal appearances of the bones and joints and also with the appearances of these structures in various diseased conditions. He first describes the process of production of the so-called "silhouette" picture; the radiographs so produced are obtained by outling the soft tissue boundaries and blotting out the remainder of the plate by India ink. These reproductions impart reality and almost a stereoscopic effect to the illustrations without in any way interfering with bony definition. Normal appearances of the bones, joints and epiphyses are considered and then the author proceeds to a demonstration of fractures, diseases of bones and a series of miscellaneous conditions. The normal radiographs are placed to the right and the abnormal ones to the left of the volume and each radiograph is briefly described on the opposing page. Illustrations of the state of the epiphyses at various ages should be of particular value. A handy key radiograph of the skull shows the relation of the cerebral convolutions to the projected bony landmarks.

SURGICAL EMERGENCIES.

MR. RUSSELL HOWARD states that the object of his book, "Surgical Emergencies," is to give in a concise, practical way the methods of arriving at a diagnosis on the details of the operation to be performed in all the surgical emergencies which which a surgeon is likely to be confronted.[2] The book contains much valuable information and should be useful to house surgeons and students especially, as well as to the general practitioner who may be called on to operate in an emergency.

It is, of course, quite impossible to teach a man how to do an operation by reference to a small book such as this, unless he has had considerable experience. If he has had such experience he would probably not need this book. In referring to post-operative retention of urine the only treatment outlined is the passage of a soft rubber catheter—no mention is made of methods which may be used before having to resort to catheterization. We feel that the author by trying to crowd so much into small space has defeated his object.

[1] "Insulin in General Practice: A Concise Clinical Guide for Practitioners," by A. Clarke Begg, O.B.E., M.D., Ch.B. (Edin.), M.B. (Lond.); 1924. London: William Heinemann (Medical Books) Limited; Post 8vo., pp. 130, with four diagrams. Price: 5s. net.

[1] "A Descriptive Atlas of Radiographs of the Bones and Joints," by A. P. Bertwistle, M.B., Ch.B. (Leeds); 1924. Bristol: John Wright and Sons, Limited; Crown 4to., pp. 213, with 219 radiographs. Price: 17s. 6d. net.

[2] "Surgical Emergencies," by Russell Howard, C.B.E., M.S., F.R.C.S.; 1924. London: Edward Arnold & Co.; Crown 8vo., pp. 216. Price: 7s. 6d. net.

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Voluntary Hospitals.

There is a perennial conflict between tradition and reform and history tells us that reform always wins. The fierce struggle to retain avails nothing; changing circumstances inexorably compel men to enter new environments and to adapt themselves to altered conditions. The reactionary is rarely aware that this obstruction born of a desire to preserve forms and institutions that have proved of use and benefit, is not only futile and foolish, but actually expedites the substitution of the new for the old. The reactionary, however, is wise in his advocacy for the retention of tried expedients. Their removal may be inevitable, but at times this process is detrimental to the ideals of the race. It appears that we are passing through an age when the fine spirit of generosity, brotherly love and charity is being forcibly replaced by bargains of a commercial nature and a demand for a tangible recognition of all public and private services. The medical profession is becoming involved in this universal elimination of acts of charity. It is, of course, imperative to realize that it is more blessed to give than to receive and that while the substitution of remunerated for honorary services hurts the medical practitioner, it places the patient in a much more comfortable position of knowing that he is not pauperizing himself by accepting a service for nothing.

The debate in the Representative Body of the British Medical Association on the hospital policy of the Association, published in the supplement to *The British Medical Journal* of July 26, 1924, is full of important and suggestive matter. Members of the Branches in Australia will do well to study this report with care. It will be within the recollection of everyone that before the war the medical profession in the old country guarded with the utmost jealousy the conception that hospitals were places where the indigent poor received medical treatment and nursing.. The ancient hospitals of London and the other great cities were founded as religious institutions for the poor, the maimed and the destitute, where comfort, food and such aid as was available to lighten or remove physical burdens, were freely dispensed. As medicine became organized into a profession of scientifically trained practitioners, the public hospitals were utilized for the treatment of acute disease or accident, while the poor law infirmaries were reserved for the care of persons in the last stages of chronic ailments. Toward the end of last century an abuse crept into the system and people of means frequently endeavoured to make and often succeeded in making use of these institutions, even when it became necessary to affect poverty by arraying themselves in shabby clothes. The funds of these hospitals were collected almost entirely as charitable gifts. The Hospital Saturday Fund and the Hospital Sunday Fund as well as legacies and endowments of beds as acts of grace provided the hospitals with the means to perform their functions. The profession sought the available positions on the medical staffs without thought of remuneration. Then began a campaign in which the medical profession was a prime mover, for the elimination of the abuse of hospitals by people who could afford to buy their medical attendance elsewhere. The profession was determined to adhere to the traditional restriction of these institutions to their original purpose. The honorary medical officers insisted on gratuitous service, but also insisted that these services should not be extended to those who had no right to them. As science progressed and diagnosis, treatment and the investigation of disease became more complicated and in consequence more expensive, the proportion of persons who found themselves unable to pay for adequate medical attendance outside, increased. It was no longer an abuse of the hospital system for a person of moderate means to seek aid in these institutions. Next came the introduction of medical benefit under the national health insurance law and with it the necessity for the majority of the insured persons to be referred to hospitals for certain forms of treatment. The war broke in on the rapid adjustment of the hospital question

and led to the suspension of the struggle already evident in 1914 between the idealists and the men who had become reconciled to the fact that it was good for the nation to eliminate as completely as possible the dependence of the wage-earner on the kindness of others. In 1920 the Minister of Health appointed a committee to inquire into and report upon the financial position of the voluntary hospitals throughout the country and to make recommendations. This action led to the summoning by the auspices of the British Medical Association of a conference of representatives of the honorary medical staffs of the voluntary hospitals with more than fifty beds. This conference adopted some resolutions which were submitted in 1921 to the Representative Meeting. That body adopted some of the resolutions and modified others. The principle of the voluntary administration of hospitals was upheld. A violent concession to altered circumstances was made somewhat reluctantly by the admission that, while necessitous persons should continue to be treated free of charge, this principle was not to apply to persons for whose care a public authority was responsible. In the next place the right of local rating authorities to subsidize hospitals for the purpose of obtaining examination and care of those for whom the authorities are responsible, was recognized. The Representative Body decided that greatly extended support should be sought from employers and insurance societies in view of the large benefit both derived from treatment of employed and insured persons in voluntary hospitals. The encouragement of contributions by patients toward maintenance was regarded as advisable and it was resolved that in those voluntary hospitals in which accommodation for paying patients is provided, fees payable for professional services should be subject to an arrangement between the patient and the medical practitioners concerned. Lastly, after a very spirited debate in which opposing views were freely expressed, it was decided that a percentage of the payments made on behalf of patients for maintenance by a public authority, employer, approved society or insurance company should be passed into a medical staff fund which could be allocated in any manner that might be determined by the members of the staff.

In 1922 the hospital policy of the Association was modified and extended after much careful investigation and the combating of strenuous opposition. The recognition of three classes of patients, free or indigent, tariff and private patients, led to a working definition of each class and the prescribing of distinct rules governing their medical attendance in voluntary hospitals. It would appear that there was considerable reluctance on the part of a large section of the profession to adopt a policy based on anything approaching payment by hospital patients for the services of the visiting medical officers. Little progress was made in 1923. The Representative Meeting this year has again taken up the matter and has endeavoured to devise a policy with the guidance of the Council which would be acceptable to the profession and which at the same time would define the relations between those who are entitled to treatment in hospitals under certain conditions in virtue of contributions made by them or by others for this purpose, and the doctors giving the attendance. It would occupy too much space to set out in detail in this place the resolutions which have been passed during the last three years on this subject. Nor is it necessary for an understanding of the principles underlying the present hospital policy of the British Medical Association, as it is applied to the United Kingdom.

In July of this year the Council presented through the able advocacy of Mr. Bishop Harman, Chairman of the Hospitals Committee, a number of recommendations for adoption by the Represenative Body. It will be noted by those who read the report of the debate, that each proposal embodying a concession of some ideal that the profession has guarded most zealously for very many years, was resisted by a powerful section of the profession. The fact that the first recommendation of the Council did not obtain the support of the two-thirds majority necessary to give the resolution the weight of a decision of the Association may be taken to illustrate that the potion to be swallowed has still a bitter taste. This motion is to the effect that contributions to hospitals by employers or employees should be considered as contributions for services rendered or to be rendered. Those who opposed the motion, failed to realize that the

National Health Insurance Act has killed the charitable basis of the voluntary hospitals. Dr. T. W. Lipscomb, the representative of the New South Wales Branch, made it quite clear that this change of hospital policy would not be acceptable in Australia. Even if the definition of eligibility for admission to voluntary hospitals be the inability of the person to pay for the necessary treatment outside the institution, it is by no means certain that honorary medical officers of hospitals in several cities of the Commonwealth do not give gratuitous attendance to persons who can pay for the treatment received or for whom some payment can be made. Dr. Lipscomb was wise in basing his statement on the policy adopted by the Branches and the Federal Committee in Australia.

It is possible that some form of national health insurance may be introduced in Australia. If this comes to pass, it is inevitable that the insured and those responsible for part of the insurance contributions will subsidize the voluntary hospitals for the specific purpose of paying for the maintenance of these people when they are admitted. The patient will then no longer be a person unable to pay for his medical attendance; he will be entitled to medical attendance under all conditions and those who undertake it, will be remunerated either by payment on a *per capitum* basis or for work done out of a pooled fund. The whole aspect of the hospital will thus be changed. If employers or the State or a fund established by law or otherwise provide the money for the payment of medical attendance on insured persons, it would be illogical for the medical profession to refuse remuneration whenever an insured person enters a public hospital and it would be even more illogical to close the doors of these institutions to the insured person on the ground that he is in a position to pay for the necessary treatment or to have it paid for him. In England the voluntary hospitals are depending more and more on the monetary support of industrial firms, local authorities, private employers and workers. Many speakers emphasized the point that the worker is anxious to pay in part or in full for both maintenance and medical attendance in hospital; he objects to the idea of accepting services as a charitable gift. However much the medical profession may desire to reserve the voluntary hospitals for the sick poor, the fact has to be faced that the sick poor represent but a small fraction of the hospital population at present in England.

It is significant that the Representative Body refused to adopt the recommendation of the Council enunciating that the members of the visiting medical staff should receive remuneration for attendance on patients for whom contributions are made, either in the form of an honorarium or through a medical staff fund. After a somewhat heated debate the Representative Body adopted as a decision of the Association a resolution in which the word remuneration has been altered to recognition of services. The resolution further provides that the medical staff fund may be allocated in any manner that the visiting medical officers may determine. This proviso appears in the earlier decisions, but the Council sought to omit it in the amended clause. In other words the Association recognizes the advisability of the establishment of a medical staff fund out of a percentage of the contributions made by or for patients, but leaves it to the discretion of the members of the visiting staff whether or not this money shall be handed to the doctors giving the services as a recognition, but not as adequate payment for the services rendered. Even after this decision had been reached, the representatives sought to render it less objectionable by adding as a rider these words: "Any concession of a nominal recognition of the services of the visiting medical staff by a percentage or honorarium should be accepted without prejudice and on account of the existing general economic conditions."

The last important modification of the hospital policy is the adoption of a form of standardization of hospitals. The eleven clauses of this section are admirable, but it is a little difficult to understand how the provisions are to be carried into effect. Under the American scheme of hospital standardization the hospitals join voluntarily and are then subjected to the control of the American College of Surgeons. Unless some outside adjudication be introduced, the public would have no guarantee that the standard of work in a given institution reaches that degree of excellence demanded of it. We are bad judges of the value of our own work.

In England the medical profession has been compelled reluctantly to face the altered conditions and to adopt a hospital policy that would have been scouted as intolerable and unacceptable but a generation ago. In Australia the profession has had to meet many difficulties in connexion with the administration and management of hospitals in the several States. At present the position in Tasmania is so bad that the medical profession holds itself aloof from the Hobart General Hospital. The profession is still fighting for the maintenance of a principle, an ideal. Encroachments have been made on this principle in special circumstances and if a system of medical benefit to cover the whole of the wage-earning section of the population be introduced, further encroachments must be expected. It may then be necessary for the British Medical Association in Australia to adapt its policy to altered conditions as the parent body has done.

Current Comment.

PRIMARY CARCINOMA OF THE LIVER.

In our issue of March 22, 1924, we drew attention to a report by Dr. A. F. Bernard Shaw of a solitary liver cell adenoma occurring in a child. The tumour in Dr. Shaw's patient was removed by operation and the child was alive and well twenty months later. The findings on histological examination were not sufficiently distinctive to justify the conclusion that malignant change was present. Dr. Shaw thought that the tumour in his patient represented a stage in the transformation of a simple adenoma into a definitely carcinomatous liver tumour. For this reason he regarded the name hepatoma, applied by Sabourin, as particularly suitable to growths of this nature. Reference was also made to the relationship of cirrhosis of the liver to carcinoma. This is a subject of considerable interest and one in regard to which finality has not been reached.

A recent contribution to the literature on the question has been made by Dr. B. M. Fried.[1] He has reported the clinical histories and *post mortem* findings of five persons who suffered from primary carcinoma of the liver. New growths arising primarily in the liver have been classified in various ways. Thus it is common to see in text-books descriptions of a diffuse form, a nodular form and a cirrhotic form. Dr. Fried has adopted the more logical method of classifying these tumours according to the cells from which they arise. He uses nomenclature which he attributes to Yamagiwa, and applies the term hepatomata to tumours arising from liver cells and designates those arising from the epithelium of the smaller bile ducts cholangiomata. Four of the tumours described by Dr. Fried were of the latter variety. They occurred in females over the age of sixty-one years. The cells of which they were composed, resembled those of the smaller bile ducts. They were cuboidal or cylindrical in shape with a narrow or large cytoplasm, a large vesicular nucleus and a deeply staining nucleolus. The arrangement of the cells was generally adenomatous and there was a tendency to duct formation. The stroma consisted of connective tissue which apparently varied considerably in amount. The fifth or hepatomatous tumour occurred in a man who gave a previous history of both syphilis and alcoholism. The cells in this tumour were polygonal, the cytoplasm was large in amount and granular. It contained a deeply staining nucleus. The cells closely resembled liver cells in structure. Metastases were found in the lungs. The cells of the metastases were similar to those in the original tumour in size, shape and structure properties. They were also seen to secrete bile. The stroma in the tumour consisted of fine capillaries and closely resembled the stroma surrounding normal liver cells. No connective tissue was found between the tumour cells and groups of cells. Dr. Fried lays great stress on the character of the stroma in the differentiation of hepatomata and cholangiomata. He refers to cases in which benign liver cell adenomata have given rise to duct-like structure and to Ewing's statement that "some cases are so far removed from their usual morphology that some doubt must always remain regarding their true origin."

In regard to the relationship between carcinoma of the liver and cirrhosis divergent views have been held. As pointed out in our previous reference to the subject it has been maintained that cirrhosis and multiple adenomata are due to the same poison and are the results respectively of proliferation of the framework and the cells of the liver. Others have regarded adenomata as a transitional stage between cirrhosis and carcinoma. It has been pointed out that cirrhosis is the commonest disease which destroys liver cells and makes a compensatory hyperplasia necessary. Dr. Fried discusses the association of primary carcinoma and cirrhosis and gives figures from various observers to illustrate the coincidence. His figures indicate that hepatoma is associated with cirrhosis in about 87% of cases and cholangioma with cirrhosis in about 51%. He refers to the work of Pirie in regard to the hepatic cirrhosis in the natives of Africa. Of ninety-six carcinomata of the liver thirty-six were found to be primary. Twenty-eight of these were liver cell carcinomata and in every one of them cirrhosis was present. The cause of this association was held by Pirie to be schistosomiasis which has been shown experimentally to induce cirrhosis of the liver. Dr. Fried believes that in the first four cases reported by him the fibrosis was secondary to the tumour and that in the remaining instance the tumour was superimposed on a previously existing portal cirrhosis. He does not, however, make his reasons for this belief sufficiently clear.

[1] *The American Journal of the Medical Sciences*, August, 1924.

CHOLECYSTECTOMY AND THE GASTRIC SECRETION.

The symptoms associated with the occurrence of cholecystitis are many and varied. Many writers hold that lesions of the gall bladder are accompanied by hypo-acidity of the gastric secretion and others maintain that the condition is one of hyper-acidity. Gatewood writing in 1923 credited Hohlweg with being the first to consider the question of achlorhydria following the loss of gall bladder function. Hohlweg based his views on the results of experiments he carried out on animals. He found that after the operation of cholecystectomy there was an interference with the normal action of the sphincter of Oddi. This permitted an abnormal flow of bile into the duodenum and led to the neutralization of the contents. Rost found that in animals whose gall bladders had been removed, there was a diminution of liver and pancreatic secretion and that the bile was discharged irregularly into the duodenum. It has been held that the abnormal conditions of the gastric secretion associated with disease or removal of the gall bladder are the result of an interference with the control exercised by a hormone originating normally in the wall of the gall bladder. On account of the alleged persistence of change in gastric secretion after cholecystectomy some observers have advised against the performance of the operation. Gatewood discussed this aspect of the question and reported the results of the analysis of gastric contents of seven patients both before and after cholecystectomy. In three the acidity was normal before and after operation. One patient had achlorhydria before operation and nine months later, the fifth had a normal acidity followed by achylia, the sixth had achlorhydria followed by normality and the seventh had hyper-acidity followed by achylia for three years. Gatewood found achlorhydria present in 45% of 192 patients with gall bladder disease and he also concluded that achlorhydria did not follow cholecystectomy frequently enough to justify the abandonment of the operation in the presence of a definite pathological condition.

This subject has been recently investigated by Dr. Jacob Meyer, Dr. A. C. Ivy and Mr. E. T. McEnery.[1] They carried out experiments on five dogs after the production of Pavlov fistulæ. The normal response to a given test meal was determined and after adequate controls the gall bladder was removed. The secretory response to the test meal was followed daily for seven days and at longer intervals for periods up to three months. One dog died of multiple liver abscesses seven days after operation, but during this period achylia was present. In three of the remaining dogs achylia was present for from three to eight days after operation and the remaining dog secreted normally on the second day. The view is expressed that the achylia was due to the direct effect of the operation and not to the absence of the gall bladder *per se*. They claim that their results confirm those of Gatewood. Moreover the results indicate that bile stimulates gastric secretion. They examine the effect of cholecystectomy on five patients with cholecystitis and can see no evidence to support the view that removal of the gall bladder is the cause of achylia or anacidity.

Dr. Meyer and his co-workers also carried out experiments to determine the presence of secretin in the mucosa of the gall bladder. They extracted freshly killed hogs's gall bladder and injected the extract into the dogs with Pavlov fistulæ. They found that a secretin was present and approximately in the same degree that it is present in the pyloric mucosa. They state that if this secretin played a definite rôle, a depression of the gastric secretion would have been present in the dogs with the fistulæ. As this was not so, they conclude that the secretin is of no physiological significance.

[1] *Archives of Internal Medicine*, July 15, 1924.

PELLAGRA.

An excellent *résumé* of the various hypotheses in regard to the causation of pellagra has recently been given by Corlette (The Medical Journal of Australia, June 21, 1924). He concluded that the present evidence in regard to the ætiology is that pellagra is a deficiency disease, the privation being firstly of tryptophane, secondly of lysine and also of other elements connected with maize flour. These include an inadequate supply of calcium and iron and of vitamin A., vitamin B. and vitamin C.. He pointed out that the complex nature of the deficiencies might serve to account for some of the clinical variations. He also added that a deficiency theory by no means disallowed the possible existence of metallic poisons produced by failure of detoxicating mechanism or otherwise, nor did it forbid infective complications induced by failure of physiological resistance.

An interesting case of pellagra has been reported by Dr. G. D. Head.[1] The patient's condition in some respects resembled those of the patient reported by Corlette and the results of treatment "lend support to the defective protein theory relative to the ætiology of the disease." When the patient came under observation she was complaining of nervousness, soreness of the mouth, diarrhœa and a dirty brown rash over the forearms and hands. The skin on the arms became scaly and began to crack about the wrists. Inquiry into the previous history revealed the fact that the patient had eaten no meat since the removal of her teeth two years before. The patient had lost 11.3 kilograms in weight, her colour was pasty white and was suggestive of myxœdema, chronic interstitial nephritis or even pernicious anæmia. Smears from exudate on the gums and roof of the mouth revealed no spirilla of Vincent, but a long bacillus and diplococci. No further information in regard to these organisms is given. Immediate improvement followed the administration of a liberal meat diet and the intravenous injection of sodium cacodylate in daily doses varying from 0.13 to 0.32 gramme.

[1] *Archives of Internal Medicine*, July 15, 1924.

Abstracts from Current Medical Literature.

MEDICINE.

Symptoms of Pulmonary Tuberculosis.

Olin S. Pettingill (*The Boston Medical and Surgical Journal*, February 14, 1924) states that cough is the most common symptom of which sufferers from incipient or moderately advanced pulmonary tuberculosis complain. A "productive" cough characterizes more than half of the early cases and pleuritic pain is almost as common. Dyspnœa may be a local or a constitutional symptom. In chronic fibroid tuberculosis dyspnœa may be traced to the effects of diminished lung capacity and loss of respiratory function, in acute pleurisy to the influence of pain and in pleurisy with effusion to the compression of one lung. As a constitutional symptom it occurs only in advanced stages of the disease when the emaciation and loss of strength are great. Constitutional symptoms (*exempli gratia* fatigue, loss of weight, afternoon fever, rapid pulse rate, general nervous instability and digestive disturbances) are the result of the intoxication from the tuberculous process. There is no specific toxin formed by the tubercle bacillus comparable to that of the diphtheria or tetanus bacillus. The tuberculous toxin does not differ widely from that of any protein. Besides bacilli in tuberculous foci, there are cellular elements undergoing disintegration. These are largely protein by nature and yield the split products of protein. It has been shown that the expressed contents of tuberculous and even of normal tissue are poisonous to the same species of animal from which they were obtained. When the focus of disease is in the lungs, anything which increases the pulmonary circulation, will liberate an excess of this poisonous material, unless the process is so well healed that absorption fails to take place. Rest in bed lessens the liberation of toxins from foci and conserves body energy.

Meningitis.

J. B. Neal (*The Journal of the American Medical Association*, May 3, 1924) classifies according to age and ætiology fifteen hundred and thirty-five cases of meningitis observed by the staff of the Department of Health of New York City since 1910. Tubercle bacillus, meningococcus, pneumococcus, streptococcus, influenza bacillus, staphylococcus and colon bacillus were the common causative agents in that order. There were six hundred and sixty-two cases due to the tubercle bacillus, an almost equal number due to the meningococcus, over eighty due to the pneumococcus and to the streptococcus and fifty-one due to the influenza bacillus. There was a large number of cases in patients under three months. The tubercle bacillus was a frequent cause at all ages, but especially between six months and ten years of age; the meningococcus was most frequently found between six months and two years and between ten and twenty years; the other causative organisms were irregular in their occurrence. The high incidence of tuberculous as compared with meningococcic meningitis coincides with a period in which no epidemic of cerebro-spinal meningitis occurred in New York. A number of other organisms were found infrequently. Mixed infections with two or more organisms were rare, although they were of occasional occurrence.

Bacillus Coli Sepsis.

A. R. Felty and C. S. Keefer (*The Journal of the American Medical Association*, May 3, 1924) report their analysis of twenty-eight cases of septicæmia due to the *Bacillus coli*. Three patients furnished instances of terminal blood invasion in miliary tuberculosis, myeloid leuchæmia and diabetic acidosis. Of the remainder eight died, a mortality of 32%. The portal of entry was the urinary tract most commonly, the female genital tract, the intestinal tract, wound infection and undetermined portals less frequently. The age of onset was variable, all ages being affected. The blood invasion was preceded in 68% by some operative procedure such as cystoscopy or surgical trauma in an already infected field. In all instances in which death ensued, the local lesion was apparently an extensive one. In all instances colon bacilli were recovered from the circulating blood and in no case were the organisms shown to be present on more than five successive days. The organisms frequently disappear from the blood soon after the initial invasion. The onset was sudden in eleven and slow in fourteen instances. Fever, rigors and sweats were common. The mental state was generally clear. The average duration of fever was seven to ten days, terminating in favourable instances by lysis. Petechiæ, sudaminal rashes, jaundice, hæmoglobinuria and *herpes labialis* occurred. In no instance was the spleen demonstrably enlarged. The leucocyte count was generally above 10,000. A definite leucocytosis most often accompanied a favourable issue. In five patients metastases occurred in the lungs or kidneys (proved bacteriologically). In four others broncho-pneumonia occurred, but was not proved to be due to metastasis. Metastases were more frequent in patients in whom infection had occurred from the genital tract.

Anaphylaxis and Allergy.

S. T. Carter (*New York Medical Journal and Medical Record*, September 19, 1923) has drawn certain distinctions betweer anaphylaxis and allergy. Firstly, in the former the exciting agent is antigenic, *id est* it is capable of producing specific antibodies, whereas in the latter it is frequently not antigenic and may be a drug. Moreover, in allergy no specific antibodies are produced. Secondly, to elicit the phenomena of anaphylaxis two injections are necessary, one to sensitize, the other to induce shock. In allergy first contact is often sufficient. Thirdly, anaphylaxis is artificially induced, while allergy is an inherited state. Lastly, complete desensitization is always successful in anaphylaxis. This is not true of allergy. Skin reactions are always obtained although frequently in a modified form. A small dose of a specific protein has been known (in hay fever, for example) to stop all symptoms for several years. This is unknown in anaphylaxis. In fact after a time the animal becomes more sensitive.

Lymphatic Leuchæmia.

G. B. Minot and R. Isaacs (*The Boston Medical and Surgical Journal*, July 3, 1924) publish results of investigations into the treatment of acute and chronic lymphatic leuchæmia by irradiation. Ninety-eight patients suffering from the typical chronic and fifty-seven from the acute form were studied. The age incidence of the chronic variety was greatest between forty-five and fifty-four, that of the acute form between five and twenty-five years. Males were affected three times as often as females, but at earlier ages more females were affected. The patients did not usually consult a medical practitioner until they had suffered with symptoms of the chronic form for eight months and the diagnosis was not usually established for sixteen months after the onset of the symptoms. In the acute form generally two weeks elapsed before the patient consulted his doctor and the diagnosis was as a rule not made for about six weeks from the onset. The duration of life in all chronic forms averaged three and a half years, whether treated by irradiation or not. In the acute form two months generally were sufficient to produce a fatal issue. Irradiation was given both by X-rays and by radium in a variety of ways. The authors considered that more intensive treatment of this kind as now recommended by short wave length Röntgen rays might produce greater benefits than the moderate doses generally used on the subjects of this paper. Although it was found that the duration of life was not increased, it was certainly true that irradiation usually benefited patients suffering with chronic lymphatic leuchæmia mainly by improving the general health. Large soft spleens and large soft lymph glands were sometimes reduced in size with added comfort for the patients. It was not found that early treatment of the disease by irradiation produced any better effects than treatment later in the disease. It was recognized that remissions occurred in the disease in the absence of treatment and there were times when it was inadvisable to irradiate. The effect of each dose should be studied carefully before further treatment is ordered. Reduc-

tion in the number of leucocytes did not always coincide with improvement in health. Improvement rarely followed irradiation when the hæmoglobin value was less than 50%. Acute lymphatic leuchæmia did not appear to be benefited by irradiation. The authors conclude that irradiation is useful in chronic lymphatic leuchæmia in improving general health and efficiency and in diminishing pressure symptoms due to enlarged glands or spleen by reducing the size of the organs.

The Tendon Reflexes in Myxœdema.

William C. Chaney (*The Journal of the American Medical Association*, June 21, 1924) claims that in myxœdema a greater stimulation is necessary to elicit a tendon reflex than in health. The tendon reflexes produce such slow movement of the parts affected that the quality can be recognized without the aid of mechanical devices and is a valuable sign in the diagnosis of the disease. The period or time interval of a tendon reflex of any person under the same conditions remains the same and is independent of the amount of stimulation applied. When a sufferer from myxœdema is treated and returns to normal health, losing the usual characteristics of the disease, his tendon reflexes also return to normal and the approach of the reflexes to normal keeps pace with the basal metabolic rate.

Treatment of Hæmatemesis.

A. F. Hurst (*The Lancet*, May 31, 1924) discusses the treatment of severe hæmorrhage from gastric and duodenal ulcers. Such hæmorrhage rarely caused death. Of six hundred patients admitted to Guy's Hospital between 1911 and 1920 for hæmorrhage from an acute or chronic ulcer, only 2.5% had died. Surgical treatment is therefore rarely indicated in these cases. The most important factor in treatment is to obtain immobility of the stomach; the empty immobile stomach is collapsed and this itself tends to control the bleeding. Absolute rest in bed and repeated hypodermic injections of morphine and atropine are indicated to prevent restlessness and movement or secretion into the stomach. No food or drink should be given by mouth till forty-eight hours after bleeding ceases, this may be gauged by the stools becoming lighter in colour. Bismuth should not be given as it darkens the stools. If the hæmorrhage is continuous and distends the stomach, the stomach should be washed out with iced water. A stomach tube should be passed just into the cardia and aspiration carried out with a Senoran's evacuator. Repeated washings are then made with one hundred and twenty cubic centimetres of iced water at a time till the water returns no longer blood stained. Four cubic centimetres of 1 in 1,000 adrenalin chloride are then run into the stomach. The hydrochloric acid of the stomach is neutralized by hourly doses of thirty cubic centimetres of magnesium emulsion to which are added 0.3 gramme of magnesium oxide and two grammes of prepared chalk. The patient's blood should be grouped and transfusion employed if necessary. This should be done if the hæmoglobin index falls below 30. When bleeding has definitely ceased, the usual medical treatment is undertaken. The author produces figures to show that hæmorrhage from either acute or chronic ulcers is not an indication for operation. Hæmorrhage occurs frequently after operation for both types of ulcer. Septic foci should be eradicated as early as possible in the convalescence of patients who have had hæmorrhage from gastric or duodenal ulcers.

Diagnosis of Diphtheric Croup.

George Swetlow (*Medical Journal and Record*, July 2, 1924) discusses the various conditions causing acute laryngeal stenosis which may be confounded with laryngeal diphtheria. The latter affection is sometimes primary, but in the majority of instances it is secondary to nasal, faucial or tracheo-bronchial diphtheria. There are three acts in the drama—invasion, spasm and asphyxia. In the stage of invasion the child not uncommonly has an angina or purulent nasal discharge for a few days when suddenly hoarseness and difficulty in breathing supervene. Whether the croup be primary or secondary, diphtheria bacilli are frequently not found in throat swabbings at this stage. The first scene in the second act opens with a slight degree of hoarseness which may progress to asphyxia. A false membrane has by this time appeared and may have spread so quickly that within twenty-four hours symptoms of definite stenosis may be evident. Hoarseness or aphoria is not a constant symptom, since the location of the membrane in the larynx may be such that the voice remains unaltered. The constant irritation by the membrane and toxin of the superior laryngeal nerve leads to a paroxysmal cough. The dreaded picture of stenosis supervenes. The respiration rate is unaltered, but the dyspnœa becomes definite. The climax comes in the third stage, that of asphyxia, which is a combination of stenosis and asphyxia. The respirations become rapid and irregular and violent irregular contractions of the accessory muscles of respiration occur. The pulse drops several beats with each inspiration, foretelling that the end is near. The face and lips become livid. Death is due to carbonic acid poisoning, broncho-pneumonia or cardiac dilatation. The condition most frequently confounded with diphtheritic croup is the so-called false croup, often known as spasmodic croup or *laryngismus stridulus*. It is frequently seen in weak or rhachitic children and may be fatal. The attacks are usually nocturnal, while the onset is sudden and the termination abrupt. There is usually no fever, the colour between the spasms is good and the cough is metallic and quite unlike that of true croup. There may be several attacks during a single night. Unlike diphtheric croup, the spasm rarely requires intubation. There is no membrane on the tonsils, throat or nose and there is no enlargement of the sub-maxillary or cervical glands. Symptoms resulting from the aspiration of foreign bodies may also simulate croup. The sudden occurrence of dyspnœa in a child, coming on during the day, should suggest the sudden entry of a foreign body into the air passages, especially when the child is known to have been in previous good health. The appearance of a slowly progressive dyspnœa should suggest the same cause. Influenzal croup may occur during an epidemic and mimic laryngeal diphtheria. There should be no difficulty in distinguishing croup from retro-pharyngeal abscess. An abscess lateral to the median line, can be felt pushing the posterior pharyngeal wall forwards. When pressure on the larynx occurs, dyspnœa ensues.

Physical Signs in the Chest in the Lateral Posture.

Taskar Howard (*The Journal of the American Medical Association*, April 19, 1924) maintains that when a patient lies in the lateral posture the peculiar action of the diaphragm is responsible for certain alterations in the physical signs of the chest. Hoffbauer and Holzknecht showed that when a person lies on one side the diaphragm on the upper side tends to "pull away" from the chest wall and straighten out, losing much of its arch, while the diaphragm on the lower side is crowded in a cranial direction by the abdominal viscera which tend to fall toward the lower side. On contraction of the diaphragm, as in inspiration, the lower half of the diaphragm moves through a much greater distance than does the upper half which remains relatively at rest. As a result, the breath sounds heard on auscultation are louder over the base of the lung on the "down" side than over a corresponding area on the opposite side. The quality of the breath sounds is unchanged. The increased sound on the lowed side is occasionally misinterpreted as signifying consolidation on that side, while the diminished or absent breath sounds on the upper side are sometimes supposed to indicate an early pneumonic infection or some pleural involvement. It is not true that a patient with pneumonia most often prefers to lie on the affected side. When a patient suffering from pneumonia of a lower lobe lies on the affected side, the chest is seen to heave with the additional effort of compensatory costal breathing and when he rolls on to the other side, the chest is relatively quiet, the breathing being largely accomplished by means of the diaphragm. Functional rest for the lower lobe is therefore best secured posturally by persuading the patient to lie with the affected side up. On auscultation not only are the breath sounds heard best on the lower side; râles are also more audible on that side.

British Medical Association News.

MEDICO-POLITICAL.

A MEETING OF THE VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the Walter and Eliza Hall Institute of Research in Pathology and Medicine, Melbourne, on September 17, 1924, DR. J. W. DUNBAR HOOPER, the President, in the chair.

Hospital Accommodation.

The following resolutions in regard to the hospital needs of the metropolis were carried:

That in order to provide for the urgent needs of the metropolis it is imperative that a suitable site should be reserved for hospital purposes; that it is essential that this site should be in the proximity of the Medical School of the Melbourne University and that the area of that site should be adequate.

That in the opinion of this meeting the best site for such a hospital is that known as the Pig and Hay Market Site.

NOMINATIONS AND ELECTIONS.

THE undermentioned has been elected a member of the Victorian Branch of the British Medical Association:

SUMMONS, HEDLEY FRANK, M.B., B.S., 1922 (Univ. Melbourne), Geelong Hospital.

THE undermentioned have been elected members of the South Australian Branch of the British Medical Association:

HARRIS, GEORGE DAVID, M.B., B.S., 1922 (Univ. Adelaide), Adelaide.

BROADBENT, ERIC ELIHU, M.B., B.S., 1917 (Univ. Adelaide), Bordertown.

Medical Societies.

THE SYDNEY HOSPITAL CLINICAL SOCIETY.

A MEETING OF THE SYDNEY HOSPITAL CLINICAL SOCIETY was held in the Lecture Theatre, Sydney Hospital, on June 19, 1924, DR. T. FIASCHI, D.S.O., the President, in the chair.

Abdominal Tumour.

DR. J. M. GILL showed a young man, aged twenty years, who complained of swelling of the abdomen of five weeks' duration. He had been constipated for the first week of his illness. Later a feeling of discomfort had developed in the epigastrium and this had been followed by pain and breathlessness on exertion. Two weeks prior to admission his legs had become swollen. Apart from this he had felt perfectly well and fit. Inquiry into the family history and his previous personal history had elicited no useful information. Dr. Gill pointed out that the patient was pale and thin. The pulse rate was 130 and the respirations numbered 20 in the minute. There was no fever. The conjunctivæ had a slight yellow tint. The abdomen was enormously enlarged and the epigastric and superficial veins were very prominent. The main part of the swelling in the abdomen was in the epigastrium which was distended, but flaccid and slightly tender. Just below the umbilicus the lower pole of the swelling could be felt. It moved with respiration.

The percussion note was dull over the whole swelling and this dulness was continuous with that of the liver and spleen. The anterior border of the spleen could be felt below and to the left of the umbilicus. No abnormalities were to be detected on examination of the other organs. The serum had not reacted to the Wassermann test and the blood count had not been abnormal. A reaction had been obtained by the complement deviation test for hydatid disease. The condition was probably abdominal hydatid disease. Laparotomy was advised.

Dermoid of the Conjunctiva.

DR. C. COHEN showed a girl, aged thirteen years, who complained of a growth in each eye. These growths had first been noted at Moorcliff Eye Hospital when the patient was eighteen months old. They had been removed at operation and it was stated in the notes made at that time that the conjunctivæ were flat and that no sign of the tumour was present after the operation.

Dr. Cohen said that the patient had presented herself again one week previously complaining that the growths had gradually recurred.

On examination two whitish, fleshy looking tumours were noticed. That on the right eye was ten to fifteen millimetres long, ten millimetres wide and five millimetres thick. It was situated on the inner and outer aspects of the conjunctiva. The tumour in the left eye was similar. It was situated in the outer part of the conjunctiva, but it was more diffuse and contained some hairs. Dr. Cohen pointed out that the growth on the right conjunctiva at the limbus overlapping the cornea was at the usual site for these growths. Dr. Cohen said that Fuchs had drawn attention to the frequent association of dermoids of the eye with congenital anomalies. This patient presented a number of abnormalities. There were two accessory auricles on the left side, a remnant of the first branchial cleft, an imperforate left auditory meatus, asymmetry of the mandible and deformity of the roof of the mouth on the left side and an appearance which was suggestive of bifid tongue. The patient also had a harsh voice and this indicated some affection of the larynx which might possibly be congenital. The child was dull mentally and unable to read much.

Chancre of the Eyelid.

DR. TANGE DUNLOP showed a man, aged twenty-one years, married, who had attended the ophthalmic department of the Sydney Hospital on June 12, 1924, complaining of a painful, swollen and discharging upper eyelid of the right eye of twelve days' duration. The swelling had commenced as a stye, had rapidly become larger and had broken down, discharging pus. There had also been a painful swelling in front of the right ear. On examination a sloughing ulcer on the right upper eyelid had been found, associated with great swelling of the lid tissues and inflammation. There had been considerable erosion and an appearance of extreme severity not usually associated with hordeolum. The pre-auricular glands on the right side had been swollen and hard. A smear from the sore had been found to contain numerous spirochætes. Since the diagnosis was confirmed, the patient had stated that his wife had been confined two months previously and had been informed by her medical attendant that she was suffering from syphilis. The husband's blood had been examined at that time by the Wassermann test, but no reaction had been obtained. Dr. Dunlop said that he had seen one other instance of primary syphilitic sore in the region of the eye. This had been at Manchester in a girl eleven years of age; the lower lid in that instance had been affected.

Porokeratosis.

DR. LANGLOH JOHNSTON showed a widow, aged sixty-nine years, who complained of loss of the skin over the ends of the fingers and thumbs of both hands of four months' duration. The trouble had begun suddenly with great pain under the nail of the right thumb. Later on the skin at the tips of the fingers and thumbs had become bluish red and itching. The skin had broken and gradually receded.

On examination the skin was seen to have receded from the tips of all the fingers and thumbs of both hands. The receding edge of the skin was hard and horny and raised about three millimetres in the middle where there was a narrow sulcus. Just beyond the raised, horny ridge there

was a slight red halo. There had been no exudation from the beginning and on squeezing the fingers nothing could be expressed. The fold between the thumb and forefinger on the right hand was affected in exactly the same way as the tips of the fingers. All the affected parts were painful on pressure. Dr. Johnston said that the condition was a very rare one known as porokeratosis. There was no clue as to the cause in this instance. The woman had been a widow for twelve months. There had been no miscarriages and no still-born children. There was one daughter, aged forty-six years, who was married and healthy. The patient attributed the trouble to scrubbing floors.

Painful Feet.

Dr. R. H. Bridge showed a young man, aged twenty-one years, who had suffered from painful feet for six months. There was no history of gonorrhœa or of injury. Treatment with rest and massage had not benefited him. On examination the arches of the feet were slightly sunken and it was thought that flat foot might be the cause of the pain. In the discussion X-ray examination was advised. It was suggested that if nothing were discovered by this means and if there were no response to the complete deviation test for the gonococcus, the feet should be encased in plaster with over correction of the long arch for some months in order to give complete rest to the parts.

Ureteral Calculus.

Dr. Bridge also showed a skiagram of a ureteral calculus with a ureteral catheter in position alongside the stone.

Colloid Cancer of the Stomach.

Dr. C. Shearman showed two specimens of colloidal cancer of the stomach, one of which had recently been removed. The thick wall of the stomach infiltrated by the growth was very well seen. Dr. Shearman said that the condition was a rare one and was particularly unusual in that the growth did not invade the nearest structures, but took the shape of the organ involved.

Skiagrams.

Drs. J. G. and W. A. Edwards showed a series of interesting skiagrams. These included pneumonoconiosis, pleural effusion, foreign body in the eyeball and ureteral calculus.

THE MELBOURNE PÆDIATRIC SOCIETY.

A meeting of the Melbourne Pædiatric Society was held at the Children's Hospital, Melbourne, on August 13, 1924, Dr. W. Dismore Upjohn, O.B.E., the President, in the chair.

Diseases of the New Born.

Dr. Arthur M. Wilson read a paper in which he stated that the statistics for 1923 showed that of all children born during that year 6% were either still born or died within the first four weeks.

The causes of death during the first month could be classified as follows:

(i.) Prematurity	45%
(ii.) Wasting diseases, marasmus, diarrhœa	20%
(iii.) Congenital defects and malformations	7%
(iv.) Convulsions	5%
(v.) Unclassified	23%

In this grouping there was no mention of birth injuries, jaundice and hæmorrhagic diseases.

He then proceeded to discuss these groups in detail. He said that prematurity might be considered in two classes. The condition in the first class might arise as a result of disease in the mother, for example syphilis, chronic nephritis, toxæmias of pregnancy and *placenta prævia*. With these the prognosis was not good. The second class occurred with a healthy mother. For example over-distension of the uterus might occur as a result of hydramnios or twins or might fallow on trauma. With these the prognosis was better. Dr. Wilson stated that in babies born at thirty-two weeks the mortality was 50%. He remarked that length was a better criterion than weight for estimating prematurity. He also advocated the establishment of a convalescent home or a visiting nursing service for the care of mothers in the puerperal state and their babies. In the management of the premature infant three main objects had to be considered. Quiet and rest were essential. The feeding should be carried out with a pipette or spoon and measured quantities should be given at regular intervals. The infant should not be exhausted by endeavouring to make it suckle. Warmth and an even temperature should be maintained and abundance of fresh air should be available and fluids in the form of small quantities of saline solution should be given by the rectum. Wasting diseases, marasmus and diarrhœa were generally associated with some other factor such as faulty methods of feeding For example, if the baby cried, it was thought to be underfed and the breast milk was often replaced by artificial feeding.

In regard to congenital defects and malformations the figures appeared to be rather high. The majority of babies with congenital heart disease survived for more than one month. A thorough and systematic examination of the baby should always be made immediately after delivery in order to detect any of these defects. Occasionally birth marks did not appear until two or three weeks latter.

Convulsions in these very young babies were almost always due to birth injury rather than a gastro-intestinal intoxication. Dr. Wilson considered that 25% of still births and 15% of all deaths in the first months were due to injury at birth.

The ætiology was usually to be found in a long labour requiring the application of forceps or a difficult delivery such as a breech presentation. The higher the application of forceps, the greater the danger to the child. The common errors in the use of forceps were wrong position and too early application. Quick extraction was also a factor. Premature babies did not stand forceps as the soft head was easily damaged and some babies bled more easily than others, probably on account of a hæmorrhagic diathesis.

The actual lesion was usually a tearing of the *tentorium cerebelli* or occasionally a cortical hæmorrhage. Many cases of *asphyxia pallida* were the result of cerebral injury.

Dr. Wilson also mentioned the occurrence of nerve injuries, obstetrical fractures, injury to muscles, cephalo-hæmatomata and the various infective conditions including multiple superficial abscesses, suppurative dermatitis, umbilical sepsis and ophthalmia.

Dr. John S. Green also emphasized the relation between congenital or neo-natal diseases and various ante-natal conditions of the mother. He stated that cerebral hæmorrhage was sixteen times more common in premature infants than in full time babies and that it was only reasonable to assume a somewhat similar incidence of hæmorrhage in those infants who had survived difficult labours or had been resurrected after prolonged resuscitation.

Dr. Green said that the commonest causes of neo-natal death were: Cerebral hæmorrhage, 40%; syphilis, 25%; pneumonia, 25%. The child of a healthy mother born at full time started life with practically no handicap. Thus in two hundred cases of still birth and neo-natal death there were only two of asphyxia and no instance of cerebral hæmorrhage under such conditions.

Dr. Green concluded by putting forward a suggestion that all the neo-natal diseases mentioned were closely associated with or the direct result of conditions in the mother which the obstetrician could detect.

Dr. C. H. Mollison related his experiences in *post mortem* examinations on infants up to the age of eleven days. He classified the various pathological conditions as follows:

(i.) Traumatic conditions. These occurred during birth and consisted chiefly of hæmorrhages into the brain, thorax or abdomen.

(ii.) Congenital abnormalities, such as diaphragmatic hernia always occurring on the left side; absence of the lungs and of the gullet; congenital abnormalities of the intestinal tract, such as absence of the pyloric lumen and

the replacement of the intestines by fibrous cords. Congenital heart disease was not common in such young babies.

(iii.) Acute sepsis generally originating from the umbilicus.

(iv.) *Tetanus neonatorum.*

(v.) Hæmorrhage from an improperly tied cord.

(vi.) Inhalation of mucus causing asphyxia and pneumonia.

(vii.) Syphilis, white pneumonia was very rare.

(viii.) Cerebral congestion and œdema due to acute infection of the meninges.

DR. DOUGLAS GALBRAITH spoke particularly of the treatment of hæmorrhagic diseases of the new born which he grouped under three headings: (i.) Traumatic, (ii.) accidental, (iii.) spontaneous; these might be symptomatic or idiopathic. He summarized the treatment as consisting in the subcutaneous administration of "Hæmoplastin," the subcutaneous or intra-muscular injection on two occasions only of whole blood from the mother and if these were not successful, blood transfusion as quickly as possible.

Dr. Galbraith cited the case of a baby who had lost a considerable quantity of blood by the bowel and had been saved by a blood transfusion into the saphenous vein.

DR. LUCY M. BEYCE spoke of her experiences in testing the compatibility of the blood of the mother with that of her new-born babe. This work was of importance in two respects: Firstly from the practical aspect, with regard to transfusion in children the subject of hæmorrhagic disease and secondly from the scientific aspect in relation to the phenomenon of iso-agglutination.

The blood from the umbilical cord of the baby was tested against the mother's blood. The results revealed that in some infants the agglutinins or the agglutinogens or both were lacking, while in others they were present at birth. Moreover, the group when established was not always the same as that of the mother and in some cases the infants' serum had manifested *in vitro* very strong agglutinative action towards the mothers' red cells. It appeared, therefore, that in a certain percentage it was not safe to transfuse a baby with its mother's or any other blood without preliminary testing. The method of direct testing was the simplest and most practical and should be used before any transfusion.

DR. R. L. FORSYTH stated that in his opinion almost all birth injuries were due to faulty technique on the part of the obstetrician.

DR. MARK GARDNER gave an interesting account of the various malformations and diseases of the eye in the new born.

DR. F. KINGSLEY NORRIS advocated the use of the father's blood which should be citrated and given by the intraperitoneal route in hæmorrhagic disease of the new born.

DR. RUPERT DOWNES, C.M.G., speaking of behalf of DR. A. JEFFREYS WOOD, asked members not to regard all examples of *pemphigus neonatorum* as syphilitic in origin. Dr. Downes also appealed for greater cooperation between the honorary medical staffs of the Women's and Children's Hospitals and suggested a temporary interchange of honorary medical officers for observation of the babies.

DR. R. R. WETTENHALL stated that the condition of exfoliative dermatitis almost always had a definite anatomical basis in the form of a vesicle or pustule which ruptured early and rapidly undermined the very soft velvety skin which was so characteristic of these babies. The epidermis was not properly formed and the condition was analogous to *epidermolysis bullosa* and was very similar to a severe burn. It was invariably non-syphilitic. Treatment consisted in the application of boracic powder or starch only, the object being to keep the parts free from exposure to the air.

DR. H. BOYD GRAHAM spoke of syphilis in the new born and strongly advocated the use of large doses of "Novarseno-billon" as soon as possible.

DR. H. DOUGLAS STEPHENS regarded the cerebral hæmorrhages of the new born as being the direct result of trauma and not associated with a hæmorrhagic diathesis.

In closing the meeting the PRESIDENT, DR. W. DISMORE UPJOHN, thanked the various speakers for their contributions to the discussion which had been of the greatest interest to the members of the Society.

THE ALFRED HOSPITAL CLINICAL SOCIETY.

A MEETING OF THE ALFRED HOSPITAL CLINICAL SOCIETY was held at the Alfred Hospital, Melbourne, on August 26, 1924, DR. J. P. MAJOR, the President, in the chair.

Injury to the Astragalus.

MR. ST. CLAIR STEUART showed a man, aged forty years, who had fallen twelve years previously from a height on to his right foot. Crushing of the astragalus had taken place and this had been partly extended backwards between the tibia and *os calcis*. *Talipes equinus* had been present and the interval between the heel and the ground had been 3.75 centimetres (three and a half inches); knee flexion had also been present. He had been treated by constant painless pressure in McKenzie's arc splint for six weeks, with the result that the knee was straight, the foot flat and the patient could walk well.

Mr. Steuart demonstrated the method of applying the splint.

Osteo-Arthritis.

DR. F. L. TRINCA showed a woman with osteo-arthritis of three years' standing. The condition was practically confined to the elbow joints in symmetrical fashion. The changes were mainly articular with very little periarticular change of the rheumatoid type. When first seen the patient had had pyorrhœa and the teeth had been removed and a vaccine prepared. X-ray examination had revealed some lipping of head of the radius, ulna and lower end of the humerus and erosion of the cartilage. There had been some limitation of extension, but the patient had presented herself mainly on account of extreme pain. The pain had been very resistant to the usual remedies, salicylates, iodides, guaiacol, Scott's dressing, hot air and vaccines. He had then tried parathyreoid medication combined later with calcium lactate. The distress of the patient had at once been relieved. The treatment had been suggested to him by the fact that the parathyreoids were known to exert a definite control over bone metabolism as shown by the occurrence of rickets after parathyreoidectomy in animals which survived, and in rhachitic and arthritis than in rheumatoid arthritis.

DR. HENRY LAURIE remarked that in his experience parathyreoid treatment had yielded better results in osteo-arthritis than in rheumatoid arthritis.

Obscure Intra-Thoracic Lesion.

Dr. Henry Laurie showed a man, aged twenty-eight years, who had been admitted to hospital complaining of pain in the chest for five days. He stated that he had been operated on for hydatid of the liver twelve years previously, but the scar suggested the site as in the lung. Seven days prior to admission he had felt tired, weak and bilious and had vomited some greenish fluid. He had become jaundiced soon after onset and five days later vomiting had become worse and the vomitus had contained bile. For the previous five or six days he had had a sharp continuous pain which passed to the tip of the left shoulder. The pain which commenced below the left costal margin, had been made worse on breathing or coughing. On admission the temperature had been 37.8° C. (100° F.). The pulse rate had been 108 and the respirations had numbered 36 in the minute. No abnormality had been detected on examination of the heart. The right side of the chest had moved less than the left with respiration. Hyperresonance had been present over the whole of the anterior aspect of the chest and dulness had been present in the lower part of the axilla on the left side. At both apices the breath sounds had been clear, but there had been diminished voluntary movement over the lower part of the right side of the chest. Tubular breathing had been present on the lateral aspect of the left side of the chest. The vocal resonance had been increased in patches on the left side and crepitations had been heard over both lower

lobes. Posteriorly there had been dulness over the lower part of the left side. Voluntary movement had been diminished at the left base, the vocal resonance had been variable and crepitations had been present at both bases. The abdomen had been somewhat rigid, but no tenderness had been present. A fortnight later the temperature, pulse and respiration had been normal. No dulness had been present on the anterior aspect of the lung, but diminished voluntary movement had been present in the lower part of the left axilla with hyper-resonance in its upper part. On the posterior aspect dulness had been present at the left apex and in the interscapular region and in this area voluntary movement had been diminished and vocal resonance was clearer. It had been thought that there was some increase in vocal resonance at the right apex. No abnormality had been found in the cerebro-spinal fluid. Tubercle bacilli had not been found in the sputum. X-ray examination had been carried out and it was found that the dulness of the left side of the chest was not uniform. It had been thought that possibly fluid was present. There had been no evidence of hydatid infestation. On blood culture *Staphylococcus albus* had been found. On blood probably due to contamination. Soon after admission to hospital the patient's blood had been examined. The leucocytes had numbered 34,000 per cubic millimetre. Of these the polymorpho-nuclear leucocytes were 89.5%, the eosinophile cells 5%, small lymphocytes 6.5%, large lymphocytes 1% and transitional cells 1.5%. Ten days later the red blood corpuscles had numbered 6,550,000 per cubic millimetre and a differential leucocyte count had revealed the polymorpho-nuclear cells to number 78%, the eosinophile cells 1.5%, the basophile cells 0.5%, small lymphocytes 18%, large lymphocytes 1% and transitional cells 1%.

Dr. Laurie pointed out that although the patient was definitely improving, he still looked very toxic. He asked for suggestions to the diagnosis.

In the subsequent discussion the possibility of miliary tuberculosis, patchy empyema, sub-diaphragmatic abscess, broncho-pneumonia, actino-mycosis were considered.

Pseudo-Hermaphrodism.

Mr. H. C. Colville showed a child of two years who was the subject of pseudo-hermaphrodism, although to outward appearance a normal female. The child had a small movable mass in each *labium majus* which proved to be a testis. This had been confirmed by microscopical examination. The child was therefore in reality a male and the opinion of members was sought as to the proper course to adopt with regard to its subsequent career.

Dr. A. J. Trinca recommended double orchidectomy.

Dr. W. Summons thought that before this was done the presence or absence of the ovaries should be ascertained, as in the latter case the child would be unsexed by the operation.

Mr. Balcombe Quick suggested the possibility of transplanting an ovary from the mother if orchidectomy was performed and subsequently bringing the child up as a female.

Malignant Ulcer of Leg.

Mr. A. J. Trinca showed a man, aged forty-eight years, with a history of chronic ulcer in the lower half of the leg for eight years. During the previous five weeks there had been rapid development of nodules and much pain. He had never had any medical treatment, but had treated himself with ointments and so forth.

Microscopical examination of a section revealed a typical picture of carcinoma. Mr. Trinca commented on the rarity of malignant changes in such conditions.

Angioma of Tonsil and Tongue.

Mr. A. J. Trinca also showed a girl, aged eighteen years, presenting angioma of the tonsil and tongue. The condition produced no symptoms and the growth was not enlarging, but he considered that the patient should be kept under observation.

Dr. C. E. Dennis suggested the possible value of radium treatment.

Sebaceous Adenoma of Pringle Type.

Dr. S. W. Shields showed a girl, aged seventeen years, with sebaceous adenoma of the Pringle type with mixed vascular and glandular elements. She had many small yellowish-red nodules mainly affecting the naso-labial fold, root of nose and chin and the number was gradually increasing. The mother stated there had been no evidence of the condition till the child was two years old. She also had a subcutaneous fibroma on the flexor aspect of the left wrist and two on the back which had been present for some years. Mentally the patient was not as bright as the rest of the family, but did not seem to be growing duller. No other members of the family were similarly affected.

Dr. Shields remarked that in this condition the mental symptoms were generally present and other malformations were usually associated. He intended to treat the patient with carbon dioxide snow.

THE MEDICAL SOCIETY OF VICTORIA.

A meeting of the Medical Society of Victoria was held at the Walter and Eliza Hall Institute, Melbourne Hospital, on September 3, 1924, Dr. J. W. Dunbar Hooper, the President, in the chair.

The President explained that the meeting had been called in order to inform members of the stage to which matters in connexion with the new building had advanced and to obtain authority for the acceptance of a tender which had been favourably considered by the Council. He asked Dr. R. H. Fetherston, as convener of the Building Sub-Committee, to submit the proposals of the Council.

Dr. R. H. Fetherston said that since the subject of the new building was last discussed at a general meeting, the plans had been modified in the direction of increasing the floor space. The plans upon which tenders had been invited, provided for an increase in size of approximately one-eighth as compared with those submitted at a former meeting. The Building Sub-Committee and subsequently the Council had considered and approved a tender for the erection of the building at a cost of £8,155.

Provision was made for two large libraries, a smaller reading room, ample office accommodation, caretaker's quarters and all necessary conveniences. The building would be constructed in reinforced concrete and the hall would accommodate a maximum number of four hundred people. He regarded the cost as satisfactory allowing for the addition of architects' fees and other contingent expenses. He estimated that an expenditure of £10,000 would cover all costs incidental to the occupancy of the new building. Of that amount the Society would have £4,000 in hand at the end of the current year and it was proposed to ask for authority to raise £6,000 by the issue of debentures. The contract as drawn specified that the building should be completed by the end of March, 1925. He moved:

(i.) That this meeting of members of the Medical Society of Victoria approve of the tender of Messrs. Thomas Donald and Company for £8,155 being accepted and authorize

(ii.) The President, Honorary Secretary, Honorary Treasurer and other members of the Building Sub-Committee to sign the contract on behalf of the Medical Society of Victoria.

(iii.) That the Council be authorized to arrange for the issue of debentures at 7% to members of the Society to cover the cost of the building.

Dr. J. F. Wilkinson seconded the motion which was carried unanimously.

University Intelligence.

THE UNIVERSITY OF SYDNEY.

A meeting of the Senate of the University of Sydney was held on September 1, 1924. Mr. W. A. Selle, M.A., who has been Acting Registrar since March 1, 1924, was appointed to the position of Registrar. The Senate had previously decided to separate the dual positions of

Warden and Registrar and Professor MacCallum will undertake the duties of Warden from September 1, 1924, to the end of the current year.

Dr. F. A. Maguire, Lecturer in Anatomy, was appointed Acting Professor of Anatomy during the absence of Professor Hunter in America in Michaelmas Term.

A letter was received from Mr. G. F. Johnston, General Agent, Canadian National Railways, offering a large framed photograph of the main building of the University of Toronto. The gift was received with thanks.

Correspondence.

VENEREAL DISEASE IN PAPUA.

SIR: At the Melbourne Session of the Pan-Pacific Science Congress held in Melbourne in August, 1923, Dr. J. H. L. Cumpston read a paper entitled: "Disease Distribution in the Pacific Basin." In this paper he states that "venereal diseases were common, but syphilis was not found in Papua, British Solomons, New Hebrides, Gilbert and Elice Islands or Samoa."

This statement is not correct as far as Papua is concerned. There is irrefutable clinical evidence that syphilis exists amongst Papuan natives. It is on clinical signs alone that it is possible to make a diagnosis in a country where yaws is prevalent.

I have to thank the Acting Chief Medical Officer for permission to publish this letter.

Yours, etc.,

W. E. GIBLIN,
Government Medical Officer.

Samarai,
September 13, 1924.

Obituary.

WALTER HERBERT BARKER.

WE regret to announce the death of Dr. Walter Herbert Barker, which occurred at Ballaarat, Victoria, on September 25, 1924.

Books Received.

CLINICAL STUDIES IN EPILEPSY: COMPOSED OF CLINICAL NOTES ON SOME EPILEPSIES AS BEARING ON THE PATHOGENESIS OF IDIOPATHIC EPILEPSY, by Donald Fraser, M.D., F.R.F.P. & S. (Glasgow); 1924. Edinburgh: E. & S. Livingstone; Crown 8vo., pp. 243. Price: 7s. 6d. net.

THE THEORY AND PRACTICE OF THE STEINACH OPERATION: WITH A REPORT ON ONE HUNDRED CASES, by Peter Schmidt, M.D., and an Introduction to the English Edition by J. Johnston Abraham, C.B.E., D.S.O., M.A., M.D. (Dublin), F.R.C.S. (England); 1924. London: William Heinemann (Medical Books) Limited; Crown 8vo., pp. 150. Price: 7s. 6d. net.

Medical Appointments.

DR. JOHN BARR MCLEAN (B.M.A.) has been appointed a member of the Nurses' Registration Board, Queensland.

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DR. L. M. PIGGOTT (B.M.A.) has been appointed District Medical Officer and Public Vaccinator at Menzies, Western Australia.

Medical Appointments Vacant, etc.

FOR announcements of medical appointments vacant, assistants, *locum tenentes* sought, etc., see "Advertiser," page xvi..

CHIPPENDALE BABY HEALTH CENTRE: Honorary Medical Officer.

DEPARTMENT OF PUBLIC HEALTH, VICTORIA: District Health Officer.

KYNUNA COTTAGE HOSPITAL, QUEENSLAND: Lady Doctor.

PUBLIC SERVICE BOARD, NEW SOUTH WALES: Senior Medical Officer of Health.

THE UNIVERSITY OF MELBOURNE: Chair of Pathology.

Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429, Strand, London, W.C..

BRANCH.	APPOINTMENTS.
NEW SOUTH WALES: Honorary Secretary, 30 - 34, Elizabeth Street, Sydney.	Australian Natives' Association. Ashfield and District Friendly Societies' Dispensary. Balmain United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Leichhardt and Petersham Dispensary. Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. North Sydney United Friendly Societies. People's Prudential Benefit Society. Phœnix Mutual Provident Society.
VICTORIA: Honorary Secretary, Medical Society Hall, East Melbourne.	All Institutes or Medical Dispensaries. Australian Prudential Association Proprietary, Limited Mutual National Provident Club. National Provident Association.
QUEENSLAND: Honorary Secretary, B.M.A. Building, Adelaide Street, Brisbane.	Brisbane United Friendly Society Institute. Stannary Hills Hospital.
SOUTH AUSTRALIA: Honorary Secretary, 12, North Terrace, Adelaide.	Contract Practice Appointments at Renmark. Contract Practice Appointments in South Australia.
WESTERN AUSTRALIA: Honorary Secretary, Saint George's Terrace, Perth.	All Contract Practice Appointments in Western Australia.
NEW ZEALAND (WELLINGTON DIVISION): Honorary Secretary, Wellington.	Friendly Society Lodges, Wellington, New Zealand.

Diary for the Month.

OCT. 7.—New South Wales Branch, B.M.A.: Council (Quarterly).
OCT. 8.—Tasmanian Branch, B.M.A.: Branch.
OCT. 8.—Central Northern Medical Association, New South Wales.
OCT. 8.—Melbourne Pædiatric Society.
OCT. 9.—New South Wales Branch, B.M.A.: Clinical Meeting.
OCT. 9.—Victorian Branch, B.M.A.: Council.
OCT. 9.—South Australian Branch, B.M.A.: Council.
OCT. 9.—Brisbane Hospital for Sick Children: Clinical Meeting.
OCT. 10.—Queensland Branch, B.M.A.: Council.
OCT. 14.—New South Wales Branch, B.M.A.: Ethics Committee.
OCT. 15.—Western Australian Branch, B.M.A.: Branch.
OCT. 17.—Eastern Suburbs Medical Association, New South Wales.
OCT. 21.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
OCT. 22.—Victorian Branch, B.M.A.: Council.
OCT. 24.—Queensland Branch, B.M.A.: Council.
OCT. 28.—New South Wales Branch, B.M.A.: Medical Politics Committee; Organization and Science Committee.
OCT. 29.—Victorian Branch, B.M.A.: Council Nomination Paper Issued.
OCT. 30.—New South Wales Branch, B.M.A.: Branch.
OCT. 30.—South Australian Branch, B.M.A.: Branch.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to "The Editor," THE MEDICAL JOURNAL OF AUSTRALIA, B.M.A. Building, 30-34, Elizabeth Street, Sydney. (Telephone: B. 4635.)

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